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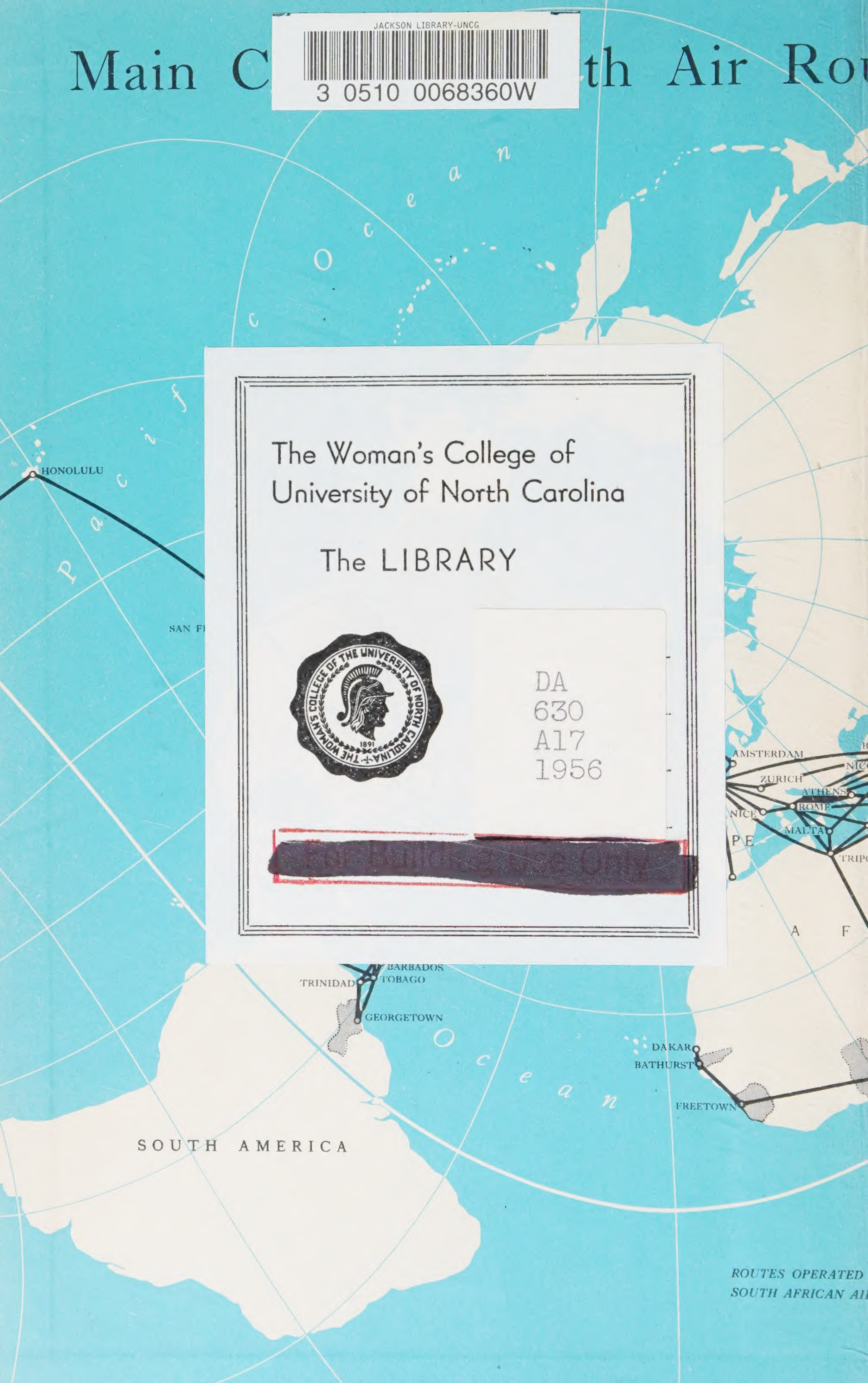

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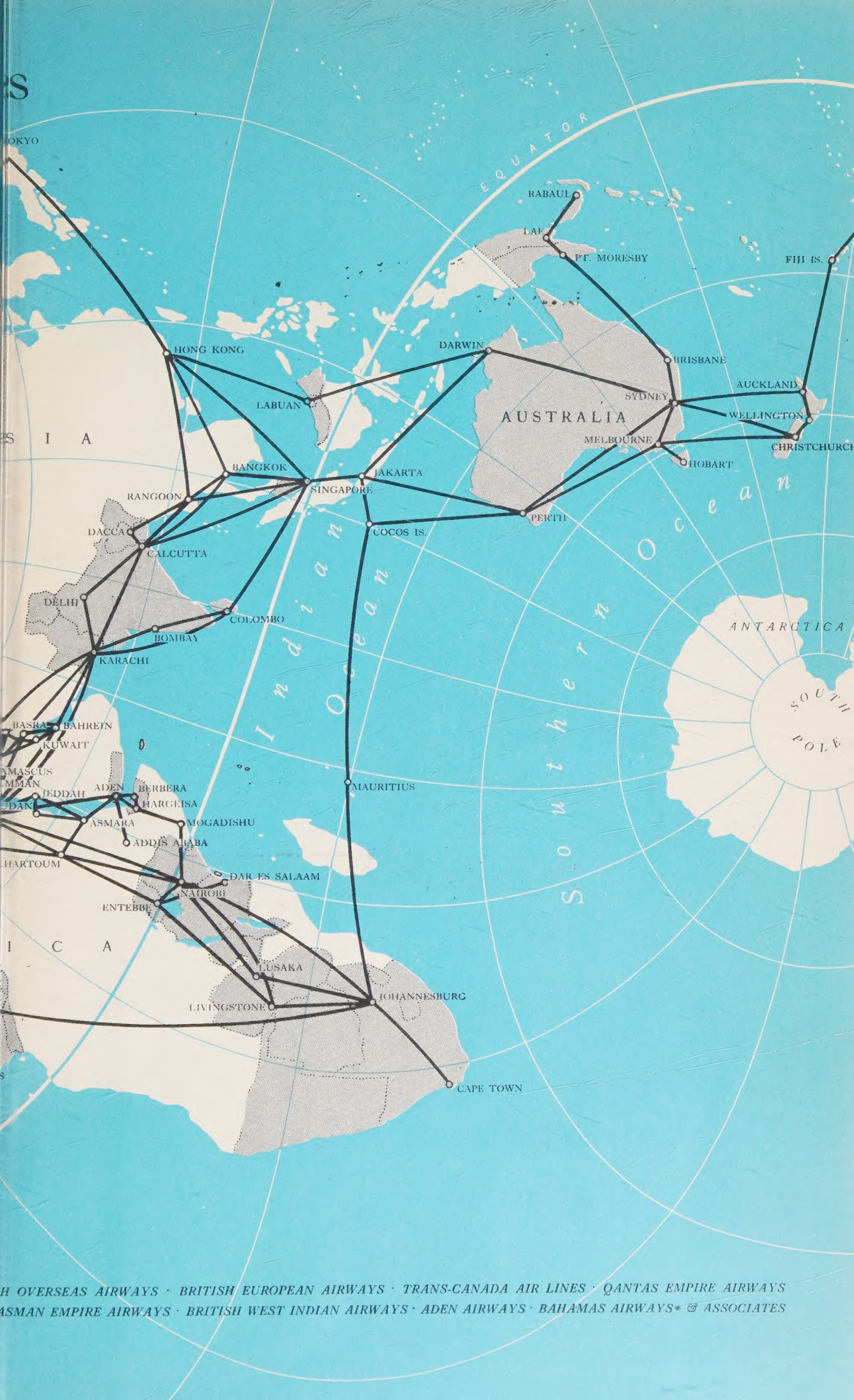
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An Official Handbook

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HER MAJESTY THE QUEEN

BRITAIN

An Official Handbook

PREPARED BY

Gt. Brit. THE CENTRAL OFFICE OF INFORMATION

1956 EDITION

LONDON

HER MAJESTY'S STATIONERY OFFICE

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CONTENTS

INTRODUCTORY NOTE — Page ix

I. THE BRITISH ISLES
- The Physical Background — 1
- The Demographic Background — 6

BRITAIN—AN OFFICIAL HANDBOOK
1956 EDITION

Erratum

On page 414 the membership of the Institute of Journalists is wrongly given as "some 12,800". This should read "some 2,600".

LONDON: HER MAJESTY'S STATIONERY OFFICE, 1956

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- Organization and Production — 125
- Agriculture and Food — 142
- Fisheries — 161
- Forestry — 164
- Fuel and Power — 168
- Water Supply — 183
- Some Manufacturing Industries — 186

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Page

VI. TRANSPORT AND COMMUNICATIONS
Shipping 208
Inland Transport 216
Civil Aviation 234
The Post Office 246

VII. LABOUR
Manpower 252
Government Employment and Training Services 256
Terms of Employment and Working Conditions 262

VIII. FINANCE
Public Finance 277
Banking and Private Finance 288

IX. TRADE
External Trade 296
Internal Trade 314

X. SOCIAL WELFARE
State and Voluntary Services 319
National Insurance and Related Services 321
Health 329
Education 338
Youth Services 347

XI. HOUSING AND PLANNING
Problems and Administration 351
Housing 351
Town and Country Planning 356

XII. RELIGION, SCIENCE, AND THE ARTS
Religion 364
The Promotion of the Sciences 368
The Promotion of the Arts 386

XIII. SOUND AND TELEVISION BROADCASTING
The British Broadcasting Corporation 399
Independent Television Services 405

XIV. THE PRESS 408

APPENDIX British Currency, Weights and Measures, and Conversion Tables 416

BIBLIOGRAPHY 418

INDEX 452

DIAGRAMS

Page

Percentage Increase in Population since 1901 by Age Group 7

Birth Rates and Death Rates 8

The Royal Family: Genealogical Tree 23

Defence Expenditure 1945–55 98

Index of Industrial Production 139

Industrial Distribution of Labour 1931–51 255

Earnings, Wage Rates and Retail Prices 272

The National Budget 1955–56 285

Composition of Trade by Value 1938–54 299

Area Distribution of Trade 1938–54 299

Average Value Index of Imports and Exports 300

The Balance of Payments 301

Regional Balance of Payments on Current Account 1946–54 302

Gold and Dollar Reserves 303

Analysis of Changes in Reserves 303

Organization of the National Health Service in England and Wales 330

MAPS

Main Commonwealth Air Routes *front end-papers*

United Kingdom: Physical 3

Location of Industry 126–7

Main Railway Lines to be Electrified 223

Proposed New Motor Roads 226

British Transport Waterways 230

Internal Airways 240

Television 403

The United Kingdom *fold-in map*

Commonwealth Sea Communications *back end-papers*

PHOTOGRAPHS

Her Majesty the Queen *Frontispiece*

facing page

An Exmoor Farmstead 38

Village Cricket 38

Snowdon and Llyn Padarn, North Wales 39

Loch Long, Wester Ross, Scotland 39

The Seven Sisters, near Eastbourne, Sussex 54

The Coast of Co. Antrim, Northern Ireland 54

The Speaker's Procession 55

A Polling Station 55

Whitehall, London 134

A Police Constable 134

Hawker *Hunter* Fighters 135

Mirror Deck-landing Aid on *H.M.S. Ark Royal* 135

The *Battalion* Anti-tank Gun 135

Some British Pedigree Livestock 150

Benvean Dam, Glen Affric 151

Model of Dounreay Atomic Power Station 151

British Motor Corporation Automatic Assembly Plant 198

British Railways Locomotives 199

The Bristol *Britannia* Civil Airliner 214

London Airport 214

H.M.T.S. Monarch, Cable-laying Ship 214

Joint Consultation in Industry 215

The Underwriting Room at Lloyd's 215

Medical Rehabilitation 342

Industrial Rehabilitation 342

A Blood Transfusion Centre 343

Instruction at Ramsay Technical Institute, Edinburgh 343

Salisbury Cathedral 358

The Parish Church of Widecombe-in-the-Moor 358

Sadler's Wells Ballet 359

Margot Fonteyn in *The Sleeping Beauty* 359

Acknowledgment is made for the use of the following photographs and diagram: for the Hawker *Hunters* to *Flight*; for the Southdown and Border Leicester-Cheviot sheep to *The Farmer and Stockbreeder*; for the diagram of the reactor at Dounreay to *The Economist*; for the Church of Widecombe-in-the-Moor to *Picture Post* Library.

Introductory Note

AN OFFICIAL HANDBOOK on these lines appeared first in 1946 as part of the British Information Services overseas. Experience had shown that there was in existence no one book prepared primarily for the oversea reader and designed to answer the questions about Britain which are most frequently asked in oversea countries by their writers and teachers, their officials and administrators, their economists and businessmen, and other leaders of their public life. In meeting this need the handbook, which has a limited free distribution overseas, has proved valuable; six revised or rewritten editions have been issued; and the book is now established as a main foundation of the reference and library services provided by the official British Information Services in oversea countries.

In 1954, BRITAIN: AN OFFICIAL HANDBOOK was for the first time placed on sale throughout the world. The success of this venture has justified the decision to revise the handbook each year and to publish it as an annual.

The handbook, which is prepared by the Reference Division of the Central Office of Information with the co-operation of other Government Departments and of many national organizations, contains factual and statistical information, compiled from authoritative and official sources, about the United Kingdom, its people and its institutions. It does not claim to be comprehensive, nor does it attempt to describe the part played by Britain in Commonwealth and world affairs. Its principal purpose is to provide basic data on the main aspects of national administration and national economy and to give an account of the part played by the Government in the life of the community.

In considering its contents, readers in the United Kingdom are asked to remember the original purpose of the book—its oversea distribution. Should any readers need additional or more detailed information they are referred to the Annual Abstract of Statistics and the Monthly Digest of Statistics issued by the Central Statistical Office, and to the standard works of reference and Government publications, some of which are listed in the bibliography at the end of this handbook. They are asked to note that the Central Office of Information reference papers listed in the bibliography as obtainable free of charge are available only at United Kingdom Information Offices overseas and for visitors to Britain.

In general, the contents of the handbook refer to the United Kingdom as a whole, but where separate facts or figures are available for England, Wales, Scotland, and Northern Ireland, these have, in some cases, been given.

REFERENCE DIVISION,
CENTRAL OFFICE OF INFORMATION, LONDON
December 1955

I. THE BRITISH ISLES

THE PHYSICAL BACKGROUND

The British Isles form a group lying off the north-west coast of Europe with a total area of about 121,600 square miles. The largest two islands are Great Britain proper (comprising the greater parts of England, Wales and Scotland) and Ireland (comprising Northern Ireland and the Republic of Ireland). Off the southern coast of England is the Isle of Wight and off the extreme south-west are the Isles of Scilly; off North Wales is Anglesey. Western Scotland is fringed by numerous islands and to the far north are the important groups of the Orkneys and Shetlands. All these form administrative counties or parts of counties, but the Isle of Man in the heart of the Irish Sea and the Channel Islands between Great Britain and France have a large measure of administrative autonomy and are not part of England, Wales or Scotland.

England (excluding the county of Monmouth on the Welsh border), has a total area (including inland water) of 50,329 square miles and is divided into 40 geographical or 49 administrative counties; Wales (including Monmouth), with an area of 8,016 square miles, has 13 counties. Scotland, including its 186 inhabited islands, has a total area of 30,411 square miles and is divided into 33 counties. Northern Ireland, consisting of six counties, has an area of 5,451 square miles. Together, these countries constitute the United Kingdom of Great Britain and Northern Ireland with a total area of 94,207 square miles.

Care must be taken when studying British statistics to note whether they refer to England as defined above, to England and Wales (considered together for many administrative and other purposes), to Great Britain, which comprises England, Wales and Scotland, or to the United Kingdom as a whole. The position is further complicated by the fact that the county of Monmouth is sometimes included with England. United Kingdom statistics and other data sometim includees the Isle of Man, 227 square miles, and the Channel Islands, 75 square miles, which are strictly not part of the United Kingdom, but are dependencies of the Crown. Since southern Ireland became an independent republic, official statistics do not normally refer to the British Isles as a whole.

The latitude of 50° North just cuts across the southernmost part of the British mainland (the Lizard Peninsula) and latitude 60° North passes through the Shetland Islands. The northernmost point of the Scottish mainland, Dunnet Head, is in latitude 58° 40′. The prime meridian of 0° passes through the old Observatory of Greenwich (London), while the easternmost point of England reaches nearly 1° 45′ East and the westernmost point of Ireland is approximately 10° 30′ West. It is thus rather under 600 miles in a straight line from the south coast of Britain to the extreme north and rather over 300 miles across in the widest part. Owing to the numerous bays and inlets no point in the British Isles is as much as 75 miles from tidal water.

The seas surrounding the British Isles are everywhere shallow—usually less than 50 fathoms (300 feet)—because the islands lie on the continental shelf. To the north-west along the edge of the shelf the sea floor plunges abruptly from 600 feet to 3,000. These shallow waters are important because they provide excellent fishing grounds as well as breeding grounds for the fish. The North Atlantic Current, the drift of warm water which reaches the islands from across the Atlantic, spreads out over the shelf and its ameliorating effect on the air is thus magnified. The effect of tidal movement is also increased by the shallowness of the water.

Geology

Despite their small area, the British Isles include rocks representing all the major geological periods. It is largely because of their long and complicated geological history that the British Isles have a range of scenery almost unrivalled in any other area of comparable size.

In the main island of Great Britain the hilly and mountainous areas lie to the north and west, so that it is possible to draw a broad distinction between Highland Britain and Lowland Britain. An irregular line joining the mouth of the Tyne in the north-east with the mouth of the Exe in the south-west marks the division between these two contrasted parts of Britain.

Highland Britain thus includes the whole of Scotland; the broad upland running from north to south through the north of England and known as the Pennines; the well-known Lake District in the north-west of England; practically the whole of Wales; and the south-western peninsula coinciding approximately with the counties of Devon and Cornwall. Highland Britain is built up almost entirely of rocks older in age than the Coal Measures and there are large tracts of the surface lying more than 1,000 feet above sea level.[1] Many parts of the surface have only thin, poor soils, with the result that large stretches of moorland are found over the Highlands of Scotland, the Pennines, the Lake District, the mountains of Wales and in parts of south-west England. In most areas the farmer has cultivated only the valley lands and the plains where soils are deeper and richer, and villages and towns are often separated by uplands with few if any habitations.

Lowland Britain, comprising south-east England and the Midlands, is built up almost entirely of rocks younger than the Coal Measures, which are less resistant to weathering and have broken down to form deep fertile soils. Scarcely any part of Lowland Britain reaches 1,000 feet above sea level, so that practically the whole, with the exception of a few patches of poor soil or rocky land, has been cultivated, and farmland stretches over the whole area except where interrupted by urban and industrial settlements. Elaborate land drainage systems have been developed through the centuries to bring under cultivation the fertile soil of the low-lying Fenland of Lincolnshire and other nearby areas in East Anglia.

Towards the end of Britain's long geological history, when the ancestors of present-day man had already settled in the country, came the great Ice Age, and at one period or another during this time the whole of Britain north of a line joining the Thames and the Bristol Channel was covered by ice caps and ice sheets. The ice naturally accumulated on the higher ground and swept from the mountains of Scotland, northern England and Wales any loose rock or soil which had previously been formed, so that when the ice eventually disappeared the hills stood out as barren rocky areas, while a thick mantle of glacial debris—boulders, boulder-clay, sands and gravels—lay distributed widely over the lower ground. The ice had blocked up previous drainage channels and left large lakes, which have since gradually dried up, leaving deposits of sand, silt and mud, often affording soils of great fertility.

In Ireland, where the solid rocks are covered deeply by the debris left by ice sheets, the great central plain has large boggy areas, due to interruption of the previous natural drainage. The mountains and hill masses of Ireland are irregularly disposed round the fringes of the island, and in the higher parts the moorland cover resembles that of the higher parts of Highland Britain.

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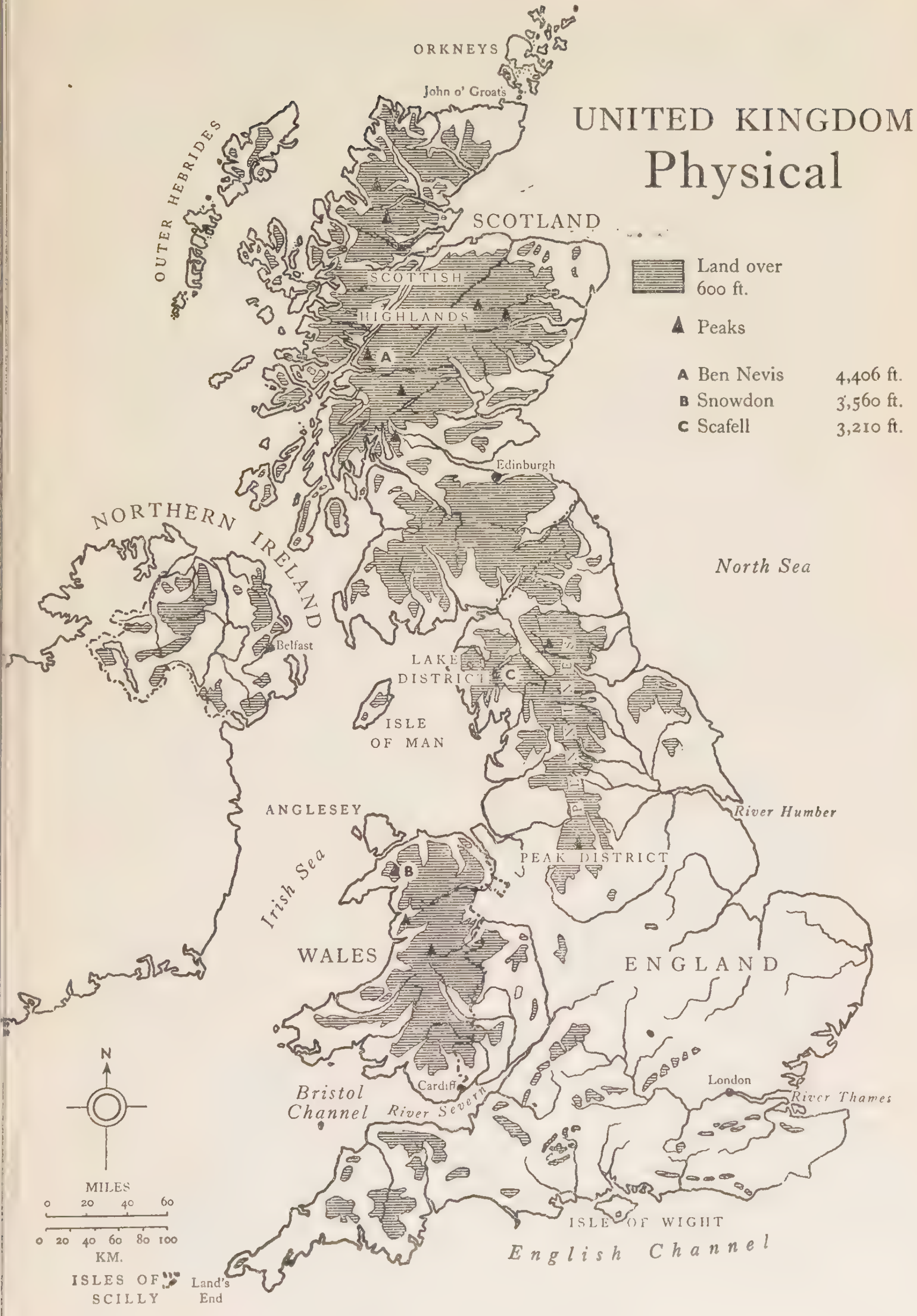
[1] The highest peaks are: in Scotland, Ben Nevis 4,406 feet; in Wales, Snowdon 3,560 feet; and in England, Scafell Pike (in the Lake District, Cumberland) 3,210 feet.


UNITED KINGDOM
Physical
Land over 600 ft.
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A Ben Nevis 4,406 ft.
B Snowdon 3,560 ft.
C Scafell 3,210 ft.
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OUTER HEBRIDES
SCOTLAND
SCOTTISH HIGHLANDS
A
Edinburgh
NORTHERN IRELAND
Belfast
North Sea
LAKE DISTRICT
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PENNINES
ISLE OF MAN
ANGLESEY
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ISLES OF SCILLY
Land's End

Because of the complex geology and the varied relief which results, Britain enjoys not only very attractive and contrasting scenery within short distances but a characteristic, ever different, coastline. The ancient rocks of Highland Britain often reach the coast in towering cliffs; elsewhere the sea may penetrate in deep lochs, as along much of the west coast of Scotland. Bold outstanding headlands are notable features in other parts of the varied coastline: the granite cliffs of Land's End; the limestone masses or forbidding slates of the Pembrokeshire coast; the red sandstone of St. Bees Head; and the vertically jointed lavas of Skye and the island of Staffa. Even around Lowland Britain there are striking contrasts. In some parts the soft, white limestone—the chalk—gives rise to the world-famous white cliffs of Dover or the Needles off the Isle of Wight. Near at hand are accumulations of sand and shingle, and such tracts as Chesil Beach, Dungeness and the sandspits of the Norfolk coast have their own peculiar beauty. The eastern coast of England between the Humber and the Thames estuary is for the most part low-lying, and for hundreds of years some stretches of it have been protected against the sea by embankments. These have occasionally been breached, as in the flood disaster of January 1953, which was caused by the abnormal concurrence of violent gales and exceptionally high tides.

The marked tidal movement around the British Isles sweeps away much of the sand and mud brought down by the rivers and makes the estuaries of the short British rivers[1] valuable as natural havens. In times past every little cove round the rocky coasts afforded shelter to a fishing village from the waves of the North Sea or the giant rollers of the Atlantic.

Situated for the most part on the border land between Highland and Lowland Britain are the outcrops of the Coal Measures containing nearly all Britain's coal. The older coal workings and collieries are usually found where the coal seams are at or near the surface and where the early miners followed them up the deep valleys into the highlands, as in Yorkshire. The modern deep collieries seek the coal where it lies beneath a cover of younger rocks and amid the farming lands of Lowland Britain. This also is well seen in Yorkshire where the newer pits are ever moving farther and farther east into farming country. Most of the coalfields of Britain, including those of the great Central Lowlands of Scotland, have given rise to industrial regions, so that the old rural pattern of British settlement, based essentially on the occurrence of good soils suitable for intensive farming, has been largely overlaid by the newer urban industrial pattern which is still growing and spreading.

Climate

Britain enjoys a temperate and equable climate. It lies in middle latitudes to the north-west of the great continental land mass of Eurasia, but as the prevailing winds are south-westerly the climate is largely determined by that of the eastern Atlantic, although occasionally during the winter months easterly winds may bring a cold, dry, continental type of weather which, once established, may persist for many days or even weeks. The weather from day to day is controlled mainly by a succession of depressions from the Atlantic which, moving in a generally easterly or north-easterly direction, pass over or near the British Isles. During the summer months the Azores high pressure system extends its influence north-eastwards towards north-west Europe, and the depressions take a more northerly course, often passing entirely to the northwards.

Winds. In Britain, south-westerly winds are the most frequent, and those from the south-east and east the least; easterly winds occur about half as often as south-westerly ones. In hilly country wind direction may differ markedly from the general direction owing to local effects. Winds are generally stronger in the north than in the south of the British Isles, on the coasts than inland, and in the west than in the east. The strongest winds usually occur in the winter; the average speed at Kew Observatory, on the western outskirts of London, varies from about 10·3 m.p.h. at 50 feet in January and February to a minimum in August of 7·5 m.p.h. The stormiest region of the British Isles is along the north-west coast with about 40 gales a year; south-east England is the least stormy, with gales occurring on about 18 days a year inland and 25 days on the Channel coast.

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[1] The longest rivers in England—the Severn and the Thames—are only 210 and 200 miles long respectively.

Temperature. At stations near sea level the mean annual temperature ranges from 45° F. in the Hebrides to 52° F. in the extreme south-west; it is slightly lower in the eastern part of the country in the same latitude. The mean monthly temperature in the extreme north, at Lerwick (Shetlands), ranges from 39° F. during the winter to 53° F. during the summer: the corresponding figures for Jersey (Channel Islands), in the extreme south, are 43° F. and 63° F. The average range of temperature between winter and summer varies from 15° F. to 23° F., being greatest at inland stations in the eastern part of the country. During a normal summer, temperature occasionally rises above 80° F. in the south, but temperatures of 90° F. and above are uncommon. Extreme minimum temperatures depend to a large extent on the environment, but 20° F. may occur on a still, clear winter's night, 10° F. is rare, and 0° F. or below has been recorded only during exceptionally severe winters.

Rainfall. The British Isles as a whole have an annual rainfall of over 40 inches, while England alone has just over 30 inches. The distribution of annual rainfall is mainly determined by topography, the mountainous areas of the west and north having far more than the plains of the south and east. Between 150 and 200 inches of rain fall on the summits of Snowdon and Ben Nevis during the average year, whereas some places in the south-east of England record less than 20 inches. Rain is fairly well distributed throughout the year, but April, on the whole, is the driest month, and December, with about twice as much, the wettest. A period of as long as three weeks without rain is exceptional, and confined to limited areas.

Sunshine. The distribution of sunshine over the British Isles shows a general decrease from south to north, a decrease from the coast inland, and a decrease with altitude. During the summer the mean daily duration of sunshine varies from five hours in western Scotland to eight hours in the extreme south-east of England; during the winter, sunshine is at a minimum, with an average of 0·5 hours per day in the neighbourhood of Ben Nevis (Scotland) and the Peak District (Derbyshire) and 1·5 hours in the south of England.

Vegetation

With its mild climate and varied soils, Britain has a diverse pattern of natural vegetation cover. When the islands were first settled, oak woodland doubtless covered the greater part of the lowland, giving place to thin forests of Scots fir on higher or sandy ground, interrupted by extensive marshlands and perhaps some open moorland. In the course of the centuries nearly all the forests have been cleared so that forest and woodland now occupy only about 6 per cent of the surface of the country. Midland Britain appears to be well wooded because of the numerous hedgerows and isolated trees. The greatest density of woodland occurs in the north and east of Scotland, in some parts of south-east England and in Monmouthshire on the Welsh border.

The hilly moorland with its heather (and cotton grass in the wetter parts), with its numerous hill grasses and the bracken fern, is a semi-natural wild vegetation. Most of Lowland Britain consists either of grass pastureland, representing centuries of careful management, or ploughland. Because the rainfall varies little in quantity from month to month, streams rarely dry up and grass remains green throughout the year.

THE DEMOGRAPHIC BACKGROUND

The people who now inhabit the British Isles are descended mainly from the people who inhabited them nearly nine centuries ago. The last of a long succession of invaders and colonizers from Scandinavia and the continent of Europe were the Normans, a branch of the Norsemen or Scandinavian Vikings who, after settling in northern France, intermarrying with the French, and assimilating the French language and customs, crossed to England and conquered it in 1066.

It is neither possible nor suitable to attempt in this chapter to estimate the relative importance of various early peoples—pre-Celts, Celts, Romans, Anglo-Saxons and the Norsemen, including the Danes—in the ancestry of the present English, Scots, Welsh and Irish. It is significant, however, that over most of England and the Lowlands of Scotland the language which soon came to predominate was English, mainly a marriage of Anglo-Saxon and Norman-French, while the use of Celtic languages persisted in Wales, Cornwall, the Isle of Man, the Highlands of Scotland and in Ireland.

The available records do not permit of any precise estimates of the size of population or of the extent or direction of population movement until the beginning of the nineteenth century. It is believed that at the end of the eleventh century the population of Great Britain was of the order of two million, while at the end of the seventeenth a reasonable contemporary estimate put the population of England and Wales at 5½ million and the population of Scotland at about one million. Natural increase was the main factor in this slow growth, though it was kept down in Britain, as in all countries before the development of medical science, by high death rates and particularly by very high infant and maternal mortality. Immigration from the continent of Europe, e.g., of Flemish weavers, was an influence at certain times.

From the beginning of the nineteenth century, information about the British people, their number, sex, age, geographical distribution, births, deaths, marriages, occupations, language and family structure, is relatively plentiful and reliable. Most of it is derived from two main sources: the periodic census of population which gives a national snapshot at a particular moment of time, and the regular flow of statistical information based on statutory registration of births, marriages and deaths.

The Census

Censuses of the people of Great Britain were taken regularly every ten years from 1801 to 1931. There was no census between 1931 and 1951, but a count of the population by age and sex was a by-product of the national registration which was instituted at the outbreak of the second world war in September 1939.

Censuses were taken on 8th April 1951 by the appropriate authorities in the United Kingdom, the islands of the British Seas and the Republic of Ireland.[1] This was the first simultaneous population count covering all these areas since the censuses of 1911. The co-operation of the Republic of Ireland in arranging a simultaneous census was of particular value, owing to the considerable sea and land traffic and the movement of population between that country and the United Kingdom.

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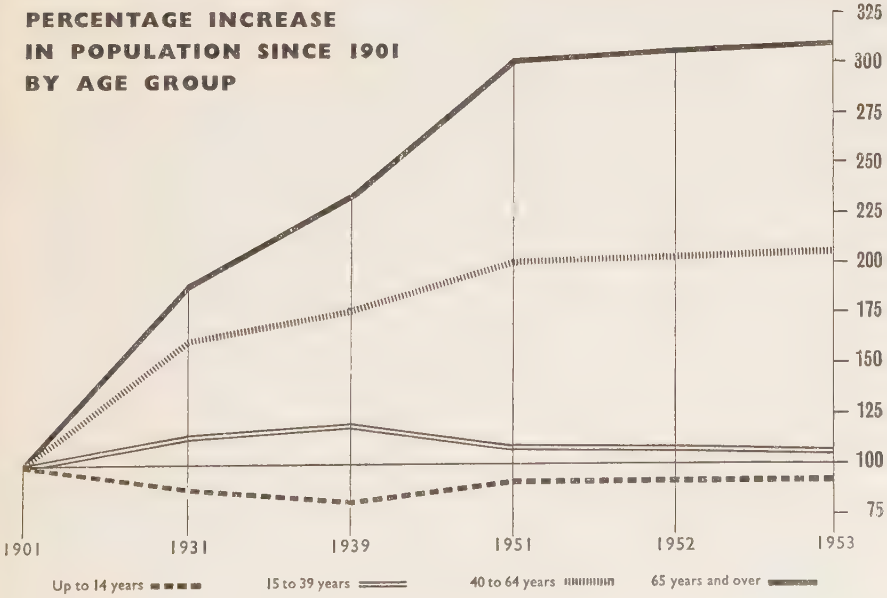
[1] These authorities are: the General Register Office, Somerset House, London; the General Registry Office, Edinburgh; the General Register Division of the Ministry of Finance of the Government of Northern Ireland; the Governments of the Isle of Man, of Jersey and of Guernsey and its associated islands; and the Central Statistical Office of the Republic of Ireland.

Preliminary reports of the censuses of England and Wales, Scotland, and Northern Ireland were obtained, in advance of the main statistical operations, direct from summaries supplied by the local census officers. They were, therefore, provisional, though no material correction to their figures was expected to be necessary. They related only to the numbers of the population by sex for each country and for administrative areas within each country, except that in the Scottish report there was a table indicating by counties the number and percentage of the population returned as speaking Gaelic. A number of local reports giving final detailed information for major administrative areas (counties, county boroughs or, in Scotland, large burghs) have since been published, as well as parts of the final reports for Scotland and Northern Ireland, and special reports on the Welsh speaking population in Wales and on the ecclesiastical areas in England. The main detailed final reports for England and Wales, however, have not yet been published as they involve more statistical work. To obtain advance information on the many matters covered by the census, an analysis was made of a representative one per cent sample of the returns for Great Britain.

The short demographic account of the United Kingdom given in this chapter is based mainly on census reports (including the 1951 Census One Per Cent Sample Tables) and on the regular returns of births, marriages and deaths, though some use has been made of other special investigations.

Total Population

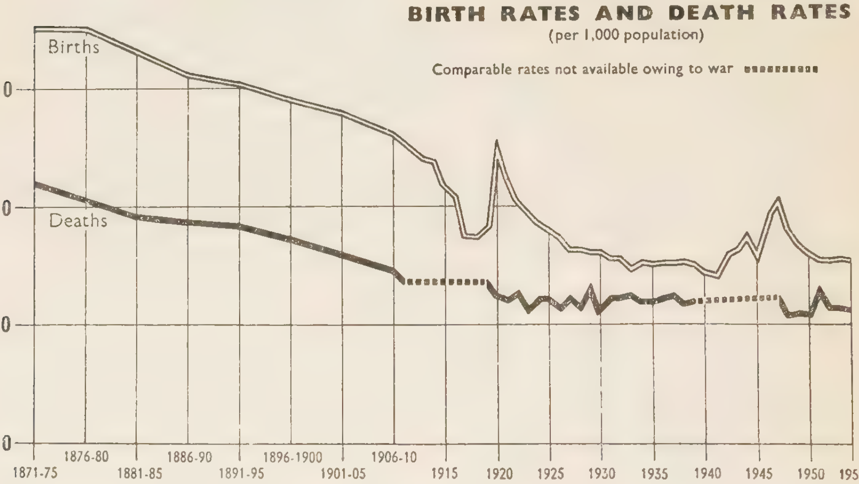
The enumerated population of the United Kingdom at the census taken on 8th April 1951 was, to the nearest thousand, 50,225,000, excluding 158,000 persons



in the Isle of Man and the Channel Islands, which are not strictly parts of the United Kingdom. This represented a population density of about 533 persons per square mile, which is one of the highest in the world and is still rising.

The population has increased by about 2½ million since mid-1939, by about 4 million since 1931, by about 6 million since 1921 and by about 43 million—or about sevenfold—since 1700. The main causes of this increase were a progressive reduction in death rates and a continuance of high birth rates into the beginning of the twentieth century. The population is still increasing, though relatively slowly, and at the end of June 1955 the resident population of the United Kingdom was estimated at 50,968,000.

Birth and Death Rates.[1] During the nineteenth century the annual birth rate was usually about 3½ per cent. The annual death rate was just over 2 per cent. Both birth and death rates fell over the last 30 years of the century, but the natural increase of the population changed but little. It rose from 1·2 per cent in 1851 to 1·4 per cent in 1881, and fell to 1·1 per cent in 1901.



These fertile years, with their comparatively high death rates in all age groups, produced a population of low average age and at each successive census the population of any age group exceeded the corresponding figure at the preceding census. When, therefore, death rates in all age groups fell by an average of about 33 per cent, as they did between 1880 and 1910, the result was first a very low crude death rate which helped to maintain the population increase in spite of a fall in the birth rate, and, secondly, a gradual increase in the average age of the population.

After the first world war the birth rate fell to less than half the nineteenth-century rate. Even so, the population continued to increase slowly, though its average age rose more rapidly (see diagram p. 7).

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[1] Birth and death rates are the ratios of live-births and deaths to the population or population-group concerned. Strictly speaking, the ratios of total live-births and total deaths to total population should be referred to as crude birth and death rates (in contrast with age-specific or other specific rates, e.g., death rate among men aged 20 to 24, birth rate among married women under 30). In common usage, however, the word 'crude' is often omitted, particularly in reference to birth rates.

Owing to the changing age composition, the crude death rate remained nearly stationary at around 1·2 per cent though death rates continued to fall heavily in all age groups, particularly among pre-school children, school children, and adults in their thirties and forties. From 1932 onwards the birth rate steadied itself and thereafter rose slowly up to the outbreak of the second world war, after which all orderly movement was interrupted by the disturbed conditions of the war years. The 1947 birth rate (20·7 per thousand of the population) was the highest since 1921, but the 1948, 1949, 1950 and 1951 birth rates were progressively lower, though higher than pre-war. Since 1951 the birth rate has been fairly steady at 15·8 per thousand of the population, slightly higher than pre-war.

Mortality Causes. The causes of the decline in mortality include better nutrition, rising standards of living, the advance of medical science, the growth of medical facilities, improved health measures, better working conditions, education in personal hygiene, public and private schemes to make the health services generally available, and the smaller size of the family, which has reduced the strain on mothers and enabled them to take greater care of their children.

Mortality from acute infectious diseases and from tuberculosis and infant and maternal mortality have declined very sharply. Mortality from the main acute infectious diseases of childhood is less than one-thirtieth, and mortality from tuberculosis is less than one-tenth of the rate prevailing in the mid-nineteenth century. Infant mortality has fallen by about 80 per cent since 1900, and between 1934 and 1942 maternal mortality was halved and has since continued to fall. The reported mortality from many of the chronic diseases of middle and old age has risen during the twentieth century, and this rise, though exaggerated by the improvement in diagnosis, is at least partly real. Medicine has not yet discovered effective measures to combat some of these diseases, and improvement in positive health does not always bring increased immunity or resistance to them.

Fertility Trends. The fall in births during the twentieth century has taken place in spite of an increase in the marriage rate and a drop in the usual age of marriage for women. It is due mainly to a decline in the number of children born per married couple (the average size of the family). Couples married in the mid-Victorian era produced on the average five to six liveborn children. Among the couples married in the years 1925–29 the figure may be estimated at 2·2.

At first the decline in family size was most marked among the professional and salaried classes. Among couples married between 1900 and 1930 the families of manual workers were about 40 per cent larger than those of non-manual workers, but this class difference appears to have been diminishing. The decline in family size has been considerably slower among Roman Catholics than in the rest of the population, and slower in Scotland and Northern Ireland than in England and Wales.

Changing social habits and the disturbing effects of war preclude any reliable estimate of long-term trends in family size since 1939, though there is some evidence of a slight increase.

Migration. Over the whole 150 years since the beginning of the nineteenth century, net migration has been markedly outward. About 25 million persons born in the British Isles are estimated to have gone overseas in this period to settle in the United States and Commonwealth countries. On the other hand large numbers of Europeans, mainly Russians, Poles and Germans, have entered the British Isles during the last 80 years. The net loss by migration since 1871 from the present area of the United Kingdom is about 3½ million. During the inter-censal period 1931–51 the net balance of migration to and from the United Kingdom was inward for the first time in the past century. The net gain to the United Kingdom from civilian migration was about half a million, a net gain of three-quarters of a million to England and Wales being offset by net losses from Scotland and Northern Ireland. This net gain was the balance of a large outward movement mainly of British subjects emigrating, mostly since 1945, to Canada, Australia, New Zealand and South Africa, and a larger inward movement mainly of aliens from Europe, many of whom were refugees seeking sanctuary in Britain. Taking only the period 1946–51 the balance of migration was outward owing to the high net outflow (some 65,000 a year) of British citizens to Commonwealth countries. In 1951 this net outflow reached a peak of 85,000, but it has since been reduced, chiefly owing to increased immigration into Britain from other parts of the Commonwealth.

Age Distribution. The continuous fall in death rates and the low inter-war birth rates are beginning to increase the proportion of elderly people, and thus to reduce the proportion of the working population to the total population. The small age groups born between the wars have been and are still coming to maturity. The size of the age groups reaching retirement age increases yearly, as these groups were born during a period of rapidly expanding population. The continuing fall of death rates in all age groups has still further increased the number of old persons. Moreover, the higher birth rates since 1942 have arrested the compensating fall in the number of dependent children. In June 1955 the age distribution of the United Kingdom was estimated as follows:

Under 15	22·5 per cent
65 and over	11·3 per cent
15 to 64	66·2 per cent.

During the present decade an unusually large proportion of the population of Britain will be between 40 and 50 years of age. Assuming that mortality rates continue to fall, and disregarding migration, it can therefore be shown that:

(1) over the next 15 years the population of working age will remain roughly constant;

(2) the number of old people (over 65) will increase over the next 30 years by about three million.

These predictions are independent of the future course of births.

Sex Ratio. Total births of boys usually exceed those of girls by about 5 per cent, but owing to the higher stillbirth rate and infant mortality among boys, and the higher male death rates in all age groups, women have for the past 100 years outnumbered men from adolescence onwards and in the total population. Their predominance increases with age and is now nearly 50 per cent among persons over 70 years of age.

The fall in mortality has affected the sex ratio by increasing the proportion of old persons in both sexes, which has made female predominance in those age groups a weightier factor in the sex ratio of the population as a whole. At the same time there has been a slight rise in the proportion of boys among children under 15 years of age.

The proportion of females to males in the total population has not varied greatly, however, as these two effects have counterbalanced each other. At present there are between six and seven per cent more females than males.

Population Policy

If the future brings a further reduction in family size, the decline of annual births will become rapid, with serious effects on the trend of population. Fear of this eventuality was an important factor in a growing concern with population problems, which led to the appointment in March 1944 of a Royal Commission on Population to inquire into the facts concerning British population trends, their causes and probable consequences; and to 'consider what measures, if any, should be taken in the national interest to influence the future trend of population'.

The Commission reported in March 1949. It found that the main cause, and very probably the only cause, of the fall in family size was the spread of deliberate family limitation. In the course of the nineteenth century powerful economic, social and cultural forces combined to tell against the continued acceptance of an uncontrolled birth rate. Changes in economic organization were reducing the importance of the family as a productive unit, while the Factory and Education Acts were extending the period during which children were an unrelieved expense to their parents. The result was that, in all classes of society except the wealthiest, married couples with young children to support were at an economic disadvantage compared with childless couples; and parents with a family of several young children were at a disadvantage as compared with those with only one or two.

The Commission's recommendations aimed at reducing the economic disadvantages of parenthood. It proposed increased family allowances; reform of income tax to reduce the disadvantages of parenthood for the well-to-do; the building of more houses with more than three bedrooms; the further development of family health and welfare services; and research and education in population questions.

Regional Distribution and Trends

The distribution of the population of the British Isles as enumerated at the 1951 Census and at certain previous censuses back to 1841, and so far as estimated at June 1954, is shown in Table 1, overleaf.

The populations of England, Wales, Scotland and Northern Ireland and of each of the principal regions of England were in every case greater in 1951 than in 1931, whereas in the period 1921–31 the populations of Wales, Scotland and Northern Ireland had declined. The greatest increases were in the eastern, southern, midland and south-western districts of England, and in Northern Ireland. The smallest increase was in Wales.

The population of the United Kingdom taken as a whole is predominantly urban and suburban. During the nineteenth century, when the labour demands of newly developing industry drew great numbers from the countryside to the towns, the urban element continuously and rapidly outgrew the rural element. At the end of the nineteenth century 75 per cent of the British population was living within the boundaries of urban administrative areas and the large conurbation[1] was already the dominant type of British community. By 1911 the economic and social limits of these conurbations extended far beyond the administrative boundaries of the cities which formed their core, owing to the building of outer suburbs which linked up neighbouring towns. Since 1921 nearly 40 per cent of the population has lived in the seven great conurbations whose centres are the cities of London, Glasgow, Birmingham and Wolverhampton, Manchester, Liverpool, Leeds and Bradford, and Newcastle upon Tyne (see Table 2, pp. 13–14).

During the twentieth century the general character of urbanization changed, the later increases in urban areas being relatively much smaller and much more due to the natural growth of the towns than to the withdrawal of rural population.

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[1] An area of urban development where a number of separate towns have grown into each other or become linked by such factors as a common industrial or business interest or a common centre for shopping or education.

TABLE 1

POPULATIONS 1841–1954(a)

		1841	1871	1901	1931	1951	1954[a]
ENGLAND (excluding Monmouthshire)	Persons	14,867,882	21,299,771	30,509,234	37,359,045	41,159,213	41,673,000
	Males	7,259,028	10,352,934	14,714,157	17,839,205	19,745,530	20,016,000
	Females	7,608,854	10,946,837	15,795,077	19,519,840	21,413,683	21,657,000
WALES AND MONMOUTHSHIRE	Persons	1,046,266	1,412,495	2,018,609	2,593,332	2,598,675	2,601,000
	Males	518,558	706,000	1,014,456	1,293,805	1,270,103	1,272,000
	Females	527,708	706,495	1,004,153	1,299,527	1,328,572	1,329,000
SCOTLAND	Persons	2,620,184	3,360,018	4,472,103	4,842,980	5,096,415	5,123,000
	Males	1,241,862	1,603,143	2,173,755	2,325,523	2,434,358	2,447,000
	Females	1,378,322	1,756,875	2,298,348	2,517,457	2,662,057	2,676,000
GREAT BRITAIN	Persons	18,534,332	26,072,284	36,999,946	44,795,357	48,854,303	49,397,000
	Males	9,019,448	12,662,077	17,902,368	21,458,533	23,449,991	23,735,000
	Females	9,514,884	13,410,207	19,097,578	23,336,824	25,404,312	25,662,000
NORTHERN IRELAND	Persons	1,648,945	1,359,190	1,236,952	1,243,000[b]	1,370,921	1,387,000
	Males	799,711	647,285	589,955	601,000[b]	667,819	676,000
	Females	849,234	711,905	646,997	642,000[b]	703,102	711,000
TOTAL GREAT BRITAIN AND NORTHERN IRELAND	Persons	20,183,277	27,431,474	38,236,898	46,038,357	50,225,224	50,784,000
	Males	9,819,159	13,309,362	18,492,323	22,059,533	24,117,810	24,411,000
	Females	10,364,118	14,122,112	19,744,575	23,978,824	26,107,414	26,373,000
ISLE OF MAN	Persons	47,975	54,042	54,752	49,308	55,253	not available
	Males	23,011	25,914	25,496	22,443	25,774	
	Females	24,964	28,128	29,256	26,865	29,479	
JERSEY	Persons	47,544	56,627	52,576	50,462	57,310	
	Males	21,602	24,875	23,940	23,424	27,291	
	Females	25,942	31,752	28,636	27,038	30,019	
GUERNSEY AND ASSOCIATED ISLANDS	Persons	28,521	33,969	43,042	42,743	45,496	
	Males	12,943	15,433	21,140	20,675	22,091	
	Females	15,578	18,536	21,902	22,068	23,405	
IRISH REPUBLIC	Persons	6,528,799[c]	4,053,187	3,221,823	2,933,000[d]	2,960,593	
	Males	3,222,485	1,992,468	1,610,085	1,497,000[d]	1,506,597	
	Females	3,306,314	2,060,719	1,611,738	1,436,000[d]	1,453,996	
TOTAL BRITISH ISLES	Persons	26,836,116	31,629,299	41,609,091	49,113,870	53,343,876	
	Males	13,099,200	15,368,052	20,172,984	23,623,075	25,699,563	
	Females	13,736,916	16,261,247	21,436,107	25,490,795	27,644,313	

Source: Census Reports and Estimates by Population Authorities.

(a) The figures for 1841, 1871, 1901, 1931 and 1951 (with the exception of those indicated in (b) and (d) below) are for populations enumerated in censuses. The figures for 1954 are mid-year estimates, to the nearest thousand.

(b) Estimate (Censuses were taken in 1926 and 1937, but not in 1931).

(c) The Military and Navy are not included in these figures.

(d) Estimate (Censuses were taken in 1926 and 1936, but not in 1931).

Moreover, two new and decided trends became apparent: first, the outer rings of conurbations and the suburbs of large cities began to increase in population much more rapidly than the large cities themselves; secondly, there was a considerable migration, particularly of young adults, to the expanding new light industries and suburban residential areas springing up in and around London and Birmingham. This movement was intensified by the heavy unemployment of the inter-war years which affected with particular severity the textile and heavy engineering industries of Scotland, Northern England and South Wales.

The combined effect of these two trends was that the outer rings of the London and Birmingham conurbations increased most in population while the remoter country areas and some industrial towns of Scotland, Wales and Northern England declined. In urban areas in England and Wales, the medium-sized towns of between 50,000 and 100,000 inhabitants increased most rapidly, while the populations of very large or very small towns tended to decline.

The second world war halted suburban building and for a time reduced the population of conurbations and large cities, but by the end of the war many people had returned to the neighbourhood of their pre-war homes. In 1951 many large cities and towns had larger populations than in 1939, but the populations of others, notably London, were reduced. The decrease in the County of London was about two-thirds of a million, and in spite of an increase in the population of the outer ring, the population of Greater London in 1951 (8,346,000 to the nearest thousand) was 382,000 less than in 1939. The populations of many urban and rural areas surrounding Greater London have continued to increase very rapidly.

After 1939—and therefore probably at least in part as a result of the war—there was a marked change in the relative rates of growth of rural and urban areas as a whole, and of small, medium-sized and large towns. For the first time in 100 years the population of administrative rural areas grew faster than that of urban areas, while within urban areas the greatest growth occurred in towns of 40,000 to 75,000 inhabitants, and smaller towns appeared to be increasing almost as fast.

Table 2 shows the distribution of the population by urban and rural districts and the populations of the standard administrative regions, of the seven major conurbations and of 16 large cities.

TABLE 2

DISTRIBUTION OF THE POPULATION (*a*) *Thousands*

	Area in square miles(*b*)	1921	1931	1939(*c*)	1951	1954(*c*)
Urban and rural districts						
England and Wales:						
Urban districts ..	8,240·5	30,035	31,952	34,183	35,336	35,640
Rural districts ..	50,104·5	7,851	8,000	7,277	8,422	8,634
Scotland:						
Cities and burghs	416·3	3,311	3,362	3,525	3,563	3,602
Landward areas ..	29,378·6	1,572	1,481	1,482	1,534	1,522
Northern Ireland:						
Urban districts ..	78·5	638(*d*)	678(*d*)	684	728	737
Rural districts ..	5,159·5	619(*d*)	602(*d*)	611	643	650

[*Continued overleaf*

TABLE 2 (*contd.*)

DISTRIBUTION OF THE POPULATION (*a*) *Thousands*

	Area in square miles(*b*)	1921	1931	1939(*c*)	1951	1954(*c*)
Standard regions of England and Wales.						
Northern	7,470·7	3,020	3,041	3,003	3,141	3,151
East and West Ridings	3,962·7	3,726	3,920	3,976	4,097	4,098
North Western ..	3,083·0	6,014	6,196	6,237	6,447	6,441
North Midland ..	6,303·8	2,759	2,946	3,065	3,378	3,437
Midland	5,024·9	3,501	3,743	3,987	4,423	4,490
Eastern	7,263·9	2,215	2,424	2,691	3,098	3,258
London and South Eastern ..	4,190·5	9,495	10,339	11,046	10,906	10,960
Southern	4,846·3	1,954	2,135	2,317	2,649	2,773
South Western ..	8,183·5	2,546	2,615	2,673	3,021	3,065
Wales	8,015·8	2,656	2,593	2,465	2,599	2,601
Conurbations						
Greater London ..	721·6	7,488	8,216	8,728	8,348	8,319
West Midlands ..	268·8	1,773	1,933	2,079	2,237	2,256
West Yorkshire ..	480.9	1,614	1,655	1,658	1,693	1,681
South East Lancashire	379·6	2,361	2,427	2,421	2,423	2,411
Merseyside	148·5	1,263	1,347	1,357	1,382	1,389
Tyneside	90·1	816	827	825	836	838
Central Clydeside ..	326·5	1,638	1,690	1,783	1,758	1,765
Cities						
Birmingham	79·9	919	1,003	1,053	1,113	1,118
Liverpool	42·7	803	856	822	789	786
Manchester	42·6	730	766	728	703	699
Sheffield	61·9	491	512	522	513	503
Leeds	59·8	458	483	497	505	507
Bristol	41·2	377	397	419	443	445
Nottingham	25·3	263	269	279	306	312
Kingston upon Hull	22·4	287	314	318	299	300
Bradford	39·9	286	298	288	292	287
Newcastle upon Tyne	17·3	275	283	293	292	287
Leicester	26·5	234	239	263	285	287
Stoke-on-Trent ..	33·1	240	277	271	275	274
Coventry	29·9	128	167	220	258	265
Glasgow	60·4	1,034	1,088	1,128	1,090	1,083
Edinburgh	50·6	420	439	472	467	469
Belfast	23·9	415(*d*)	438(*d*)	439	444	449

Source: Census Reports and Estimates by Population Authorities.

(*a*) The boundaries of some of these administrative areas have been altered from time to time. The population figures given relate to the areas as these were defined in the year noted at the head of each column. The figures for conurbations, however, relate to roughly the same geographical areas throughout.

(*b*) Area at the date of the 1951 Census of Population.

(*c*) Mid-year estimate.

(*d*) 1926 and 1937 census figures.

Language

In England, Wales, Scotland and Northern Ireland, English is the language predominantly spoken. In Wales, however, Welsh, a form of British Celtic, is the first language of most of the population in some of the central and northern counties and was spoken by 29 per cent of the population at the time of the 1951 census. In Scotland nearly 100,000 persons, mainly in Ross and Cromarty, Inverness, Argyll, and Lanark, speak the Scottish form of Gaelic,[1] while a few scattered families in Northern Ireland speak the Irish form of Gaelic. The Manx and Cornish varieties of Celtic are no longer effectively living languages, although Manx is used in addition to English for certain official pronouncements in the Isle of Man.

French is still the official language of Jersey, but, in Guernsey, English is now used for all official proceedings. English is generally spoken throughout the Channel Islands, although a Norman French patois is still spoken there by some people.

Social Patterns

A general summary of trends in social organization, similar in scope to the foregoing summary of population trends, is not practicable. Human relations and behaviour are too complex and too little susceptible to precise statistical treatment, while sources of sociological information are incomplete and not always reliable. It may be useful, however, to review some of the evidence relating to the structure of British households and the extent and use of leisure in Britain in order to provide a background to the information given in later chapters on such matters as town planning, housing, and transport.

Number and Composition of Households

In Great Britain, as in other countries, most people live as members of private households (usually families). Less than 5 per cent of the population was enumerated by the censuses of 1911, 1921, 1931 and 1951 in institutions such as hotels, schools, and hospitals.

In 1911 there were about nine million private households[2] in Great Britain. By 1951, according to the Census One Per Cent Sample Tables, there were about 14½ million households, an increase of about 60 per cent. This expansion seems out of proportion to the 19 per cent increase in the total population for the same period. It was in fact comparable with the increase in the population of persons over 24 years old and the slightly larger increase in the number of married persons. In other words, the increasing age of the population meant more but smaller families. The average size of household in Great Britain fell from 4·5 persons in 1911 to 3·2 in 1951. In England and Wales the number of persons living in households of one or two persons almost tripled between 1911 and 1951. At the end of this period such households constituted about 40 per cent of private households and comprised about 20 per cent of the population in private households. About two-thirds of the persons living alone in 1951 were 60 years of age or over, while in 43 per cent of families of two persons, the head of the household was 60 or over.

It has been difficult to increase the number of separate dwelling-places (houses or flats) sufficiently rapidly to overtake the increasing number of private households, and this difficulty was aggravated by the suspension of house-building and the destruction of property during the second world war. There were in 1951 only some 13·3 million structurally separate dwelling-places in Great Britain, so that over 2 million households had to share a home (see page 351). It is unofficially estimated that about three-quarters of all dwellings in Great Britain are terraced or semi-detached houses (usually of 4 to 6 dwelling-rooms including bedrooms) while the remaining quarter consists of detached houses and flats in approximately equal numbers. The proportion of flats is greatly above average in Scotland (estimated at about 60 per cent) and considerably above average in London (estimated at 17 per cent).

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[1] Most of the islands off the west coast of Scotland where Gaelic is spoken are included in the counties of Ross and Cromarty, Inverness, and Argyll.

[2] Counting persons living alone as one-person households.

Of the 14½ million private households in Great Britain, 11½ million were estimated in the 1951 Census Sample to be of the simplest type, comprising married couples or widowed persons with their children, if any, or persons living alone. More specifically, they comprised 3·2 million married couples with no children, 900,000 widowed persons living alone, 6·9 million married couples or widowed persons with children of any age, 600,000 single persons living alone. Over a third of all married couples living alone were 60 years old or over; less than a quarter of the married couples under 40 years of age in these simplest types of household had no children; and the majority of the single persons living alone were over 40 years old.

Nearly another million households were of these simple types except for the inclusion of parents or non-married brothers or sisters of the head of the household. Only 2 million households contained persons less closely related to the head than parent or brother or sister, or contained non-relatives. There were nearly a million families consisting of married couples, or married or widowed persons with children, who were without their own homes, and the majority of these were living in the homes of their parents. Apart from these satellite family groups, 1,102,700 households contained an aggregate of 1,240,000 other persons unrelated or distantly related to the head of the household, the bulk of whom were presumably of the status of boarders. Of these more than half a million constituted sole individual additions to the more normal types of families with married heads. There were nearly 300,000 households consisting of two persons who were distantly related or were unrelated to one another.

Over 8 million households (57 per cent of all households) were estimated in the 1951 Census Sample Tables to be without children under 16, while another 3·1 million contained only one child.

In Great Britain as a whole it was estimated that, in 1951, 180,000 households had resident domestic servants, who numbered, in all, 205,000. Of these, about half were in households of one or two other persons, and over a quarter were in the households of single or widowed or divorced persons, 40 years old or over, living alone except for a servant. A sample analysis of 1931 census data covering only England and Wales estimated 706,800 resident domestic servants in private households, which compares with 178,000 in England and Wales in 1951.

Work and Leisure

The great majority of British males over 15 years of age are in full-time gainful employment, and the majority of females are either housewives or in full-time gainful employment (see p. 252). In many cases housewives also undertake part-time or even full-time employment.

Agreed hours of full-time work for the majority of occupations are usually about 44 hours a week, with some variation on each side. Actual weekly hours worked by men average a little longer owing to overtime working, and actual hours worked by women and girls average a little less (see p. 274). To these hours must often be added the time taken in travel to and from work. According to a sample survey made in August 1943, over 75 per cent of wage earners in large towns spent half an hour a day travelling to and from work, mainly by public transport, while over 30 per cent spent over an hour in such daily travel. Immediately after the war, conditions may have improved slightly; the long-term trend, however, is for journeys to and from work to take longer, in spite of increased public transport, as more people live on the outskirts of urban areas and as traffic density increases. In Greater London a sample survey made in 1949 showed that the average time taken in travelling to and from work was 88 minutes a day.

In addition, there is often a long journey from home to the main shopping centre in both urban and rural areas. According to a sample survey made in 1946 it averaged about 18 minutes each way, and in many rural areas took much longer. In most areas there are, of course, a few shops much closer at hand. Most housewives in urban areas go to the shopping centre at least once a week.

One consequence of the distance from home to work and to shops is the growth of the habit of eating away from home. Food rationing restrictions during the second world war and the early post-war years tended to increase this habit, which has also been encouraged by the establishment of factory and office canteens and the provision of midday meals in schools. About half the total number of school children and many adults take some meals regularly outside their homes.

According to a sample survey made in 1947, only 6 per cent of housewives employ any paid help, and only 1 per cent[1] have a resident servant. Housewives appear, in general, to have rather less leisure and considerably fewer periods of continuous leisure of over one hour than other persons in Britain.

Most employees, in addition to 1½ or 2 days' holiday each week and 6 statutory public holidays a year, get at least one week's continuous holiday in the year, and an increasing proportion of employees are now entitled to two weeks' holiday a year (see page 274). In fact, about half the population take at least a week's holiday away from home every year, mostly in July and August. Some two-thirds of these spend their holiday by the sea in Britain. A relatively small but rapidly increasing number of holiday-makers go abroad: two million in 1954, including nearly half a million to the Republic of Ireland.

At least a quarter of the adult population is interested in playing or going to watch outdoor sports[2]; the most popular are Association football and cricket. In England alone about 23,000 football clubs—mainly amateur clubs—are affiliated to the English Football Association, excluding another 9,000 clubs in the armed forces, universities and schools. Some 750,000 youths and men play in weekly football matches during the winter months, apart from those playing in informal games; spectators at professional football matches number between one and two million weekly. Cricket is played by children, youths and men of every walk of life, especially in England. Attendance at first-class cricket matches is somewhat smaller than at professional football matches, but the 'Test' matches with the cricket teams of Commonwealth countries have become of nation-wide interest. Cricket is less popular in Scotland, where golf has pride of place. Race meetings throughout the country draw large crowds, while many other sporting events, for instance rugby football matches in the winter months and, in the summer, tennis tournaments, especially the annual lawn tennis championships at Wimbledon, have their smaller but devoted public. Amateur athletic associations flourish throughout the country, and every form of outdoor pursuit from swimming, hiking, cycling and motoring[1] to hunting, shooting and fishing has an enthusiastic following, though many sports, such as sailing, gliding, and rock-climbing, are practised only by relatively few keen amateurs. Climatic and physical conditions in Britain afford few opportunities for ski-ing and mountaineering, but numbers of people go abroad regularly for these pursuits.

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[1] This estimate has been shown to be approximately correct by the analysis of households employing servants made in the 1951 Census Sample Tables (see p. 16).

[2] A social survey of Derby made in 1953 showed that half the adult population in that town, including two-thirds of the men, were at least occasional spectators of sporting events, and that over one-fifth, including over half those under 25 years of age, actually participated, most of them regularly.

The spread of television has added a vast new audience of indoor spectators to the crowds who go to watch sporting events and great national occasions. By the end of October 1955 one out of every three homes had a television set; viewers are fairly evenly distributed among all sections of the population, irrespective of income. The number of television licences is increasing rapidly; in the two years from end-June 1953 to end-June 1955 the number rose by over 2¼ million (from 2,415,305 to 4,676,422); by October 1955 it had exceeded 5 million. Some districts, however, are still outside the regular range of the transmitters (see pp. 403–4).

Television has caused a considerable fall in cinema attendances and has materially affected leisure habits in many ways. The cinema remains, however, the most popular form of indoor entertainment outside the home. A third of all adults, including two-thirds of those under 25 years of age, and one out of two school children go to the cinema, on average, at least once a week. Attendances at theatres are much smaller, though most people visit them occasionally. There are only some 400 to 500 theatres in the country, compared with some 4,700 cinemas, yet the Derby Survey showed that half of the adult population of that town went to the theatre more than twice a year. About a quarter of the adult population of Derby sometimes went to concerts, and in the country as a whole there is known to be an enthusiastic and growing public for concerts, ballet and opera.

Dancing is popular especially with those under 25 years of age. There have been estimated to be some 450 to 500 ballrooms in Great Britain, and dances and other social gatherings are also often held in other halls or in club-rooms. The Derby Survey showed that in that town nearly half the adult population, including 60 per cent of the men, belonged to a social, sporting or cultural club and that over a third of them visited such a club at least once a month.

One traditional social rendezvous, the public house, has maintained and even increased its popularity, although there has been a marked decrease in drunkenness and in consumption of alcohol per head since the nineteenth century. The public house now attracts a very wide circle of casual customers (both men and women) as well as many 'regulars', who meet for a drink and a chat, and perhaps to play some traditional public house game such as darts. A new, and in some ways rival, feature of urban life, especially in London, is the coffee bar. A characteristic of many of these coffee bars, which stay open until late at night and are becoming increasingly popular as a rendezvous for young people, is their modern *décor*. On the other hand many people, especially the married and the elderly, spend much of their leisure at home—reading, listening to the radio, viewing television, or pursuing hobbies. The most widespread hobbies are practical, for example, knitting and needlework for women and gardening for men. The standard of town and country gardens is high.

A number of people, young and old, find their main free-time interest in some form of group activity of a serious nature, connected, for example, with the churches, trade unionism, politics, social welfare and reform, or with cultural pursuits such as amateur dramatics or music. People with such interests are, of course, in a minority,[1] but they constitute an important and characteristic feature of British life and, indeed, an essential ingredient in the working of British democracy.

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[1] There are some six million motor vehicles licensed at the height of summer, of which over three million are cars and over one million are motor cycles. Many of the cars, however, are used partly, if not primarily, for business purposes.

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[1] The figures from the Derby Survey showed that 8 per cent of adults in that town belonged to intellectual or cultural clubs or societies, 11 per cent were members of some political party, 13 per cent went to church every week (although 9 out of 10 homes had a bible), and 3 per cent held some church office.

II. GOVERNMENT AND ADMINISTRATION

THE MONARCHY

The United Kingdom is a monarchical state, formed originally in the ninth century by the unification of all England under a Saxon king, and later expanded by the conquest of Wales and Ireland[1] by kings of England and by the dynastic union of the English and Scottish thrones in the person of James I of England and VI of Scotland. The United Kingdom is also a member nation of the Commonwealth, of which the Queen is the head.

The form of the Royal title is varied for those member countries of the Commonwealth which owe allegiance to the Crown to suit the particular circumstances of each. India, as a republic, owes no allegiance to the Crown, but accepts the Queen as the symbol of the free association of the member nations and, as such, as the head of the Commonwealth.[2]

Agreement was reached at a meeting of Commonwealth representatives in December 1952 on the form of the Queen's title in the various parts of the Commonwealth, and legislation was passed by the Parliaments concerned to enable the necessary changes to be made.[3] The Royal Title in the United Kingdom is: 'Elizabeth the Second, by the Grace of God of the United Kingdom of Great Britain and Northern Ireland and of Her other Realms and Territories Queen, Head of the Commonwealth, Defender of the Faith'.

The seat of the monarchy is in the United Kingdom. In the other member nations of the Commonwealth which owe allegiance to the Crown, the Queen is represented by a Governor-General appointed by the Crown on the advice of the ministers of the country concerned. The function of the Governor-General is to act in relation to the administration of public affairs according to the constitutional practice obtaining in the country in which he holds office in regard to the exercise of the powers of the Crown. As the Queen's representative he is wholly independent of the United Kingdom Government; and he is sometimes a national of the country in which he holds office. In the Dependencies—the Colonies, the Protectorates and the Trust Territories—the Queen is represented by Governors, High Commissioners or Residents, who are appointed by the Crown and perform the constitutional functions of the Crown, but who have in addition varying executive and legislative powers, and are responsible to the United Kingdom Government for the good government of the countries concerned.

Each of the member nations of the Commonwealth has its own separate constitution, governed by different laws and customs, and subject to different powers of change. The scope of this chapter will be confined to a description of one of those nations—namely the United Kingdom—and the machinery and processes through which its constitution works.

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[1] In 1920 the United Kingdom was diminished by the separation of the 26 counties of southern Ireland.

[2] The position of Pakistan will be similar when its new republican constitution is adopted.

[3] In the United Kingdom, the Royal Titles Act, 1953.

Succession

The monarchy is the most ancient secular institution in the United Kingdom. Its continuity has been broken only once in over a thousand years; and in spite of interruptions in the direct line of succession, the hereditary principle upon which it was founded has never been abandoned. Queen Elizabeth II is a descendant of the Saxon king Egbert, who united all England in 829.

The permanence of the monarchy has been ascribed to the fact that the constitution of the United Kingdom is governed by conventions rather than by formal law. Conventions are those parts of the rules and practices under which a system of government works, which are not part of the law of the land in the sense that violation of them may lead to proceedings in a court of law, but which are nevertheless indispensable to the machinery of government. Since they are based upon usage, they are not absolutely binding; and they may therefore be adapted to changing conditions without serious disturbance to existing organs and forms.

The title to the Crown derives from the Act of Settlement, 1701, which laid it down that 'the Crown . . . shall remain and continue to the said most excellent Princess Sophia[1] and the heirs of her body being Protestants'. Subsequent Succession to the Crown Acts have confirmed this declaration; and although succession is not bound to continue in its present line, it cannot now be altered (under a provision of the Statute of Westminster, 1931) except by common consent of the member nations of the Commonwealth which owe allegiance to the Crown.

The inheritance of the Crown is governed by rules of descent, which provide that the sons of the Sovereign are in Order of Succession to the Throne according to their seniority, or, if there are no sons, the daughters in order of seniority. When a daughter succeeds, she becomes Queen-Regnant, and powers of the Crown or Royal Prerogatives[2] are vested in her as fully and effectively as though she were a king. By convention, the consort of a king takes the rank and style of her husband; but the converse does not apply, and the constitution has never attached any special rank or privileges to the husband of the Queen-Regnant.

Accession

There is no interregnum between the death of one Sovereign and the accession of another. Immediately on the death of his or her predecessor the new Sovereign is proclaimed at an Accession Council to which all members of the Privy Council are summoned. The Lords Spiritual and Temporal, the Lord Mayor, Aldermen and other leading citizens of the City of London, and the High Commissioners in London of the member nations of the Commonwealth are also invited to attend.

Coronation

The coronation of the Sovereign follows the accession after an interval which may last for a year or more. The ceremony, which has frequently been modified in detail to bring it into conformity with the customs of the time, has remained much the same in substance for nearly a thousand years. The service used at the coronation of Queen Elizabeth II was derived from the service used at the coronation of King Edgar at Bath in the year 973.

The coronation service is held at Westminster Abbey in the presence of representatives of the peers, the Commons and all the great public interests in the United Kingdom, of the Prime Ministers and leading members of the other Commonwealth countries, and of representatives of foreign States.

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[1] The Electress of Hanover, grand-daughter of James I.

[2] 'The residue of discretionary or arbitrary authority which at any time is legally left in the hands of the Crown.' Professor A. V. Dicey's *Law of the Constitution*.

Acts of Government

The Queen is the personification of the State. In law, she is the supreme authority, an integral part of the legislature, the head of the judiciary in England and Wales, Northern Ireland, and Scotland, the commander-in-chief of all the armed forces of the Crown and the temporal head of the established Church of England. In practice, as a result of a long evolutionary process, during which many restrictions on the Royal Prerogative have been imposed, these powers have changed from being the weapon of the monarchy to being the means of giving effect to the public will. Today, the Queen acts only on the advice of her ministers which she cannot constitutionally ignore. She reigns, but she does not rule. The United Kingdom is governed by Her Majesty's Government in the name of the Queen.

Within this framework, and in spite of the fact that the trend of legislation during the past hundred years has been to assign powers directly to ministers without any necessity for royal intervention, there are still important acts of government which require the participation of the Queen.

The Queen summons, prorogues and dissolves Parliament; she opens the new session with a speech from the throne; and she must give Royal Assent before a Bill which has passed all its stages in both Houses of Parliament becomes a legal enactment. The Queen is 'the fountain of justice', and in spite of the fact that the judiciary is now completely independent of the executive 'all jurisdictions of the courts are either indirectly or immediately derived from the Crown'. As 'the fountain of honour', the Queen makes appointments to peerages, knighthoods and other honours; to all important State offices,[1] including judges, officers in the armed forces, governors, and diplomats; and to all leading positions in the established Church of England. The Queen's consent and approval are required before a minister can take up office or a Cabinet be formed. In the realm of international affairs, by virtue of her pre-eminence as head of the State, the Queen has the prerogative power to conclude treaties, to cede or accept territory, to declare war and to make peace.

Other prerogative powers of the Crown relate to the creation of corporations by Royal Charter; the construction and supervision of harbours; the guardianship of infants and persons of unsound mind; the administration of charities; coinage; the grant of franchises, e.g., markets, ferries and fisheries; the right to treasure trove (see p. 77); and the sole right of printing or licensing others to print the Bible, the Book of Common Prayer and State papers.

There is clear ministerial responsibility for all these acts of government, as is shown in the three ways in which the royal will can be constitutionally expressed: by Order-in-Council (see p. 35) made 'by and with the advice of the Privy Council'; by Order, Commission or Warrant under the sign manual, which generally bears the signature of one or more responsible ministers; or by Proclamation, Writs, Letters Patent, or other documents under the Great Seal affixed by the Lord Chancellor in obedience to a Royal Warrant countersigned by a minister.

Ministerial responsibility for the exercise of powers by the Crown does not detract from the importance of the participation of the Sovereign in the smooth working of government; for although the Queen has no personal authority and must show complete impartiality in every field, she must be informed and consulted on every aspect of the national life to the widest possible extent. The Queen holds meetings of the Privy Council, gives audiences to her ministers and other

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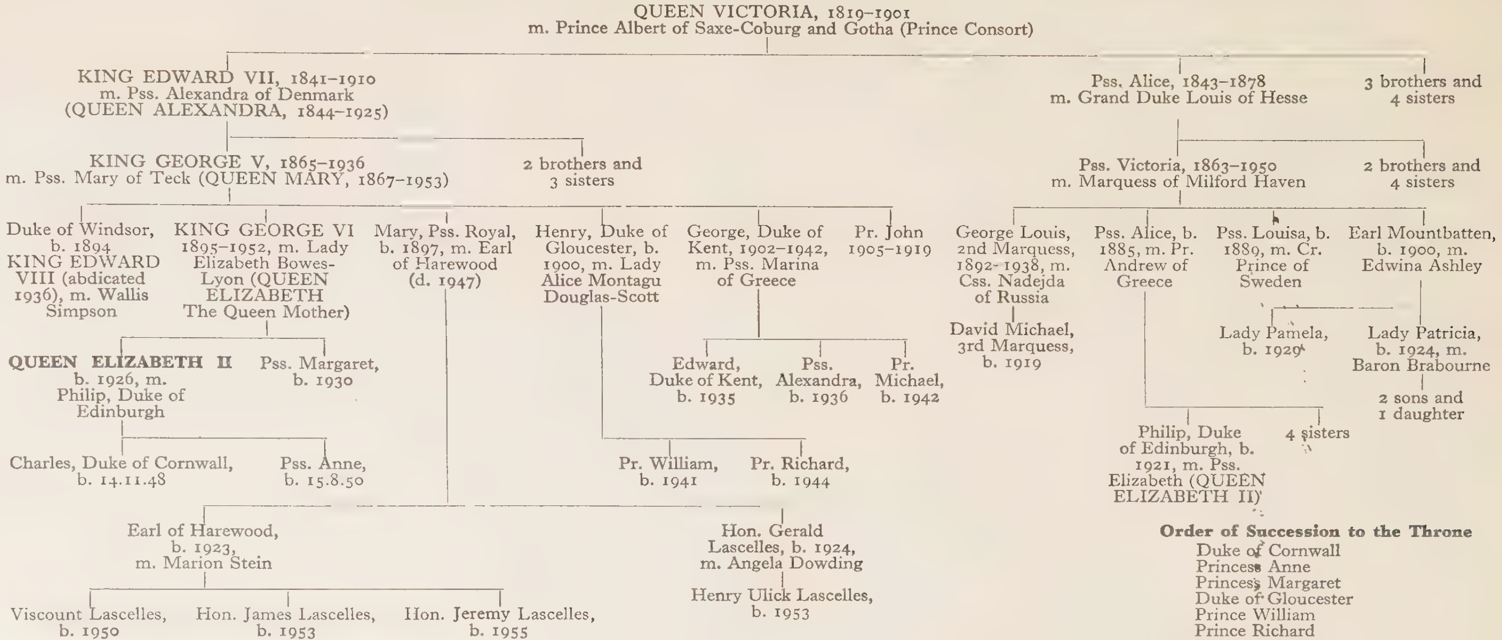
[1] In 1901 the Demise of the Crown Act provided that the holding of any such office should not be affected by the death of the Sovereign and that no fresh appointment should be necessary.

THE ROYAL FAMILY


QUEEN VICTORIA, 1819–1901
m. Prince Albert of Saxe-Coburg and Gotha (Prince Consort)
KING EDWARD VII, 1841–1910 m. Pss. Alexandra of Denmark (QUEEN ALEXANDRA, 1844–1925)
Pss. Alice, 1843–1878 m. Grand Duke Louis of Hesse
3 brothers and 4 sisters
KING GEORGE V, 1865–1936 m. Pss. Mary of Teck (QUEEN MARY, 1867–1953)
2 brothers and 3 sisters
Pss. Victoria, 1863–1950 m. Marquess of Milford Haven
2 brothers and 4 sisters
Duke of Windsor, b. 1894 KING EDWARD VIII (abdicated 1936), m. Wallis Simpson
KING GEORGE VI 1895–1952, m. Lady Elizabeth Bowes-Lyon (QUEEN ELIZABETH The Queen Mother)
Mary, Pss. Royal, b. 1897, m. Earl of Harewood (d. 1947)
Henry, Duke of Gloucester, b. 1900, m. Lady Alice Montagu Douglas-Scott
George, Duke of Kent, 1902–1942, m. Pss. Marina of Greece
Pr. John 1905–1919
George Louis, 2nd Marquess, 1892–1938, m. Css. Nadejda of Russia
Pss. Alice, b. 1885, m. Pr. Andrew of Greece
Pss. Louisa, b. 1889, m. Cr. Prince of Sweden
Earl Mountbatten, b. 1900, m. Edwina Ashley
QUEEN ELIZABETH II b. 1926, m. Philip, Duke of Edinburgh
Pss. Margaret, b. 1930
Edward, Duke of Kent, b. 1935
Pss. Alexandra, b. 1936
Pr. Michael, b. 1942
David Michael, 3rd Marquess, b. 1919
Lady Pamela, b. 1929
Lady Patricia, b. 1924, m. Baron Brabourne
2 sons and 1 daughter
Charles, Duke of Cornwall, b. 14.11.48
Pss. Anne, b. 15.8.50
Pr. William, b. 1941
Pr. Richard, b. 1944
Philip, Duke of Edinburgh, b. 1921, m. Pss. Elizabeth (QUEEN ELIZABETH II)
4 sisters
Earl of Harewood, b. 1923, m. Marion Stein
Hon. Gerald Lascelles, b. 1924, m. Angela Dowding
Viscount Lascelles, b. 1950
Hon. James Lascelles, b. 1953
Hon. Jeremy Lascelles, b. 1955
Henry Ulick Lascelles, b. 1953

Order of Succession to the Throne

Duke of Cornwall
Princess Anne
Princess Margaret
Duke of Gloucester
Prince William
Prince Richard
Duke of Kent
Prince Michael
Princess Alexandra
Princess Royal
Earl of Harewood
Viscount Lascelles
Hon. James Lascelles
Hon. Jeremy Lascelles

In the Order of Succession the sons of the Sovereign and their descendants have precedence over the daughters. The daughters and their descendants have precedence over lateral lines.

Dates Relating to Queen Elizabeth II

Marriage:	20 Nov. 1947
Accession to throne:	6 Feb. 1952
Coronation:	2 June 1953
Official Birthday Celebration:	Early in June

holders of office at home and overseas, receives accounts of Cabinet decisions, reads dispatches and signs innumerable State papers.

Such is the significance attached to these royal functions that provision has been made by Acts of Parliament for a Regent to be appointed to fulfil them if the Sovereign is totally incapacitated, or if the Heir Apparent or the Heir Presumptive is under the age of eighteen on accession to the throne. In the event of the Sovereign's partial incapacity or absence abroad, provision is made for the appointment of Counsellors of State to carry out those of the royal functions which are delegated to them. The latest of these Acts—the Regency Act, 1953—laid down that the first potential Regent should be the Duke of Edinburgh and thereafter the Princess Margaret and then those in succession to the throne who are of age.

Ceremonial

Ceremonial has always been associated with the kings and queens of the British Isles, and in spite of the changes that have taken place with the altered outlook of both the Sovereign and the people, certain customs and usages are the same today as they were many centuries ago.

The formal ceremony of Presentation still takes place, although now at the Afternoon Presentation Parties held by the Queen, which have superseded the former Courts. Royal marriages, the birth of royal children and royal funerals are still marked by ancient ceremonial, although to a lesser degree than in former days. The birthday of the Sovereign, formerly the occasion of many royal and public functions, is today officially celebrated early in June by Trooping the Colour on the Horse Guards Parade.

State banquets still take place when a foreign monarch or head of State pays a visit to the United Kingdom; investitures are still held at Buckingham Palace, although today honours may be bestowed without the personal attendance of the recipient upon the Sovereign. State processions are still an integral part of royal ceremonial; they grace such social occasions as the Ascot Race Meeting, known as Royal Ascot; and they add significance to the opening of Parliament, when the Queen drives in state from Buckingham Palace.

The Sovereign is the leader of society by order of general precedence dating from the fourteenth century and sustained until the present day by royal ordinances, ancient usage, established custom and the public will. The Queen's presence at the inauguration of scientific, artistic, industrial, and charitable works of national importance ensures nation-wide interest and support.

PARLIAMENT

The supreme legislative authority in the United Kingdom is the Queen in Parliament, that is to say the Queen and the two Houses of Parliament—the House of Lords and the House of Commons—which together represent all the elements in the nation.

The three sections of 'Parliament' in this sense are outwardly separate: they are constituted on entirely different principles; they do different work in different places and they meet only on occasions of great symbolic significance such as the Coronation or the opening of Parliament by the Queen in person, when the Commons are summoned by the Queen to the House of Lords. As a law-making organ of State, however, Parliament is a corporate body and cannot legislate without the concurrence of all its parts, except in the case of measures passed under the Parliament Act, 1949.[1]

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[1] See p. 32.

The Parliament at Westminster is representative of all the countries of the United Kingdom; it can legislate for the whole of the United Kingdom, or for Great Britain, or, separately, for England and Wales, or for Scotland alone. It is not, however, the only Parliament in the United Kingdom, for Northern Ireland has its own Parliament (see p. 34), and within the British Islands the ancient legislatures of the two Channel Island Bailiwicks (the States) and of the Isle of Man (the Tynwald) each legislates on domestic matters although the United Kingdom Parliament retains supreme authority.[1] Nevertheless, the Parliament at Westminster has no rival authority, and within practical limits there is nothing that it cannot legally do.

By the passing of the Parliament Act, 1911, the normal life of the United Kingdom Parliament was fixed at five years (although it may be and often is dissolved in less than that time); and since one Parliament cannot bind its successor (for otherwise the succeeding Parliament would not be sovereign or supreme), each assembly has a period of time of up to five years during which it may legislate exactly as it chooses. During its life, it can make or unmake any law; it can destroy by statute the most firmly established convention of the constitution; it can legalize past illegalities and thus reverse the decisions of the courts; and it even has power to prolong its own life by legislative means beyond the normal period of five years without consulting the electorate.

In law, therefore, the supremacy of Parliament is absolute. In practice, Parliament does not attempt to exert its supremacy in this way. In the first place, pressure of business in recent decades has resulted in a large and increasing amount of delegation of legislative authority to ministers (see pp. 32–33), and of specific powers to local authorities and to public corporations of various kinds. Powers delegated in this way could, of course, be withdrawn by Parliament, but existing demands on parliamentary time make such a development extremely unlikely. Secondly, the system of party government in the United Kingdom effectively discourages Parliament from acting in too arbitrary a fashion; any parliamentary majority which abused its powers would almost certainly suffer severely at the hands of the electors.

The Meeting of Parliament

A 'Parliament' in the sense of a parliamentary period begins and ends with a proclamation made by the Sovereign on the advice of the Privy Council. Such a proclamation on the one hand dissolves an existing Parliament and on the other orders the issue of writs for the election of a new one and appoints the day and place of its meeting.

Formerly the death of a Sovereign involved the dissolution of Parliament, since Parliament meets on the personal summons of the monarch. Since 1867, however, when the Representation of the People Act of that year made the duration of Parliament independent of the demise of the Crown, both Houses stand adjourned only until their members have taken the Oath of Allegiance to the new Sovereign, which occurs immediately after the Accession Council has made the order for Proclamation.

The time between the meeting of a Parliament and its prorogation or dissolution is called a session. Parliament is usually prorogued by a commission under the Great Seal, which appoints the day and place of its meeting in a new session. The date so appointed may be brought forward or deferred by a subsequent proclamation. The effect of a prorogation is at once to terminate all business until Parliament shall be summoned again, when any measures not yet passed must be re-introduced, unless it be decided that they are to be abandoned.

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[1] The channel of communication between the United Kingdom Government and the local legislatures is the Secretary of State for the Home Department, who advises the Crown on the exercise of the Royal Prerogatives. The Queen is represented in each of the Channel Island Bailiwicks and in the Isle of Man by a Lieutenant-Governor.

During the session, either House may adjourn itself on its own motion to such date as it pleases. An adjournment does not affect uncompleted business. A re-assembly of the House can be accelerated or delayed either by proclamation or by virtue of powers specially conferred by each House on its Speaker.

The average length of a session is about 160 sitting days divided by custom into the following periods: one from November until Christmas lasting about 30 sitting days, one from January to Easter of about 50 sitting days, one from Easter until Whitsun of about 30 sitting days, and one from Whitsun until the end of July lasting about 40 sitting days. In addition, in recent years, the session has usually concluded with a short period of about 10 sitting days in October, after the long summer recess.

The House of Lords

In June 1955 the House of Lords consisted of 878 peers, as follows: (1) princes of the royal blood (who by custom take no part in proceedings), (2) 26 spiritual peers —the archbishops and senior bishops of the Church of England, (3) all hereditary peers (other than minors and those who had not then applied for a writ of summons) of England, Great Britain, and the United Kingdom,[1] (4) 16 hereditary peers of Scotland elected from their own number for each Parliament in accordance with the provisions of the Act of Union, 1707, (5) five representative peers of Ireland elected for life,[2] and (6) several Lords of Appeal in Ordinary appointed to perform the judicial duties of the House and holding their seats therein for life.

Temporal peerages are conferred by the Sovereign on the advice of the Ministers of the Crown, as a mark of distinction. All, except the judicial peerages, are hereditary and, with the exception of the Scottish and Irish peerages, they carry with them, for men over 21 years of age, a right to a seat in the House of Lords. A summons to Parliament cannot be withheld from a peer who is entitled to it, although of the peers who receive the writ of summons only about one-tenth take any active part in the work of the House. Party politics have little effect upon the membership of the House, which remains relatively stable over a long period of time.

The House of Lords is presided over by the Lord Chancellor, who is the Speaker of the House. The permanent officers include the Clerk of the Parliaments, who is charged with keeping the records of proceedings and judgments and who pronounces the words of assent to Bills; the Gentleman Usher of the Black Rod, who enforces the orders of the House; and the Serjeant-at-Arms, who attends the Lord Chancellor.

The House of Commons

The House of Commons is a popular assembly elected by an almost universal adult suffrage and containing members from all sections of the community regardless of income or occupation. There are at present 630 members of the House of Commons (511 for England, 36 for Wales, 71 for Scotland, 12 for Northern Ireland).

Members of the House of Commons hold their seats during the life of a Parliament. They are elected either at a General Election which takes place after Parliament has been dissolved and a new one summoned by the Sovereign, or at a by-election which is held when a vacancy occurs in the House as a result of the death or resignation of a member during the life of a Parliament.

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[1] Peerages created between 1707 (the Act for the Union of England and Scotland) and 1800, are peerages of Great Britain; those created since the Act for the Union of Great Britain and Ireland, 1800, are peerages of the United Kingdom.

[2] By the Act for the Union of Great Britain and Ireland, 1800, the Irish peers were entitled to elect 28 representatives, but since 1922 no new peers have been elected.

For electoral purposes, the United Kingdom is divided into constituencies, each of which returns one member to Parliament. In order that the people shall at all times be equitably represented by this means, permanent Boundary Commissions for England, Scotland, Wales, and Northern Ireland (established in 1944) keep constituencies constantly under review and submit periodic reports either recommending some alteration in boundaries if, for instance, movement of the population has made this necessary, or recommending no change. Changes in the boundaries of constituencies which came into effect for the 1955 General Election increased the number of seats in the House of Commons from 625 to 630.

Election to the House of Commons is decided by secret ballot in which all United Kingdom citizens (except members of the House of Lords) and all citizens of the Commonwealth and of the Republic of Ireland who are resident in the United Kingdom are entitled to vote, provided that they are 21 years old or over, and unless they suffer any legal incapacity to vote. A register containing the names of all electors is prepared and published yearly by registration officers, who, in England and Wales, are usually the clerks of local councils, and in Scotland are the lands valuation assessors. Electors normally vote in person at specially established polling stations, although Service voters, i.e. members of the armed forces, Crown servants of the United Kingdom employed overseas, and the wives of such persons if resident overseas with their husbands may vote by proxy. Voting by post, or in certain cases by proxy, may also be allowed if the voter cannot attend in person for such reasons as illness or the nature of his work. All entitled to vote may stand for election, except undischarged bankrupts and such persons as clergymen of the established Churches of England and Scotland, of the Church of Ireland and of the Roman Catholic Church, and persons holding certain offices of profit under the Crown.

The chief parliamentary officer of the House of Commons is the Speaker, who is elected by the members as president of the House immediately after a new Parliament is formed. Other parliamentary officers of the House are the Chairman of the Committee of Ways and Means, and the Deputy-Chairman, who may act as Deputy-Speaker; both these officers are elected by the House. In addition there are the party officials, i.e. the Government and Opposition Whips. Non-parliamentary or permanent officers of the House, i.e. those who are not members of Parliament, include the Clerk of the Commons, who is charged with such matters as keeping the records, endorsing Bills and signing Orders; the Serjeant-at-Arms, who attends the Speaker in the House; and the Chaplain to the Speaker.

Parliamentary Privilege

Both Houses of Parliament enjoy certain privileges and immunities designed to protect them from unnecessary obstruction in carrying out their duties. These privileges apply collectively to the Houses and individually to each member.

In the House of Commons, the Speaker formally claims from the Crown for the Commons 'their ancient and undoubted rights and privileges' at the beginning of each Parliament. These include freedom from arrest[1]; freedom of speech in debate; and the right of access to the Crown, which is a collective privilege of the House and is exercised by the Speaker on its behalf. Further privileges include the right (rarely exercised) to debate in secret; the right to control internal proceedings; and the right to pronounce upon legal disqualifications for membership and to declare a seat vacant on such grounds.

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[1] This does not imply freedom from arrest for a criminal offence or for contempt of court.

The privileges of the House of Lords are (1) freedom from civil arrest for themselves and their servants for a period of 40 days before and after a meeting of Parliament, (2) freedom of speech in debate, (3) freedom of access to the Sovereign for each peer individually, (4) the right to commit for contempt, (5) the right to try and be tried by their fellow peers on charges of treason or felony, and (6) the right to exclude disqualified persons from taking part in the proceedings of the House. These privileges are not formally claimed by the Speaker as in the House of Commons; they exist independently without grant.

The Party System

The party system has existed in one form or another since the seventeenth century, and has now become an essential element in the working of the constitution.

The present system is based upon the fact that there are three effective political parties in the United Kingdom: Conservative, Labour and Liberal, each of which lays rival policies before the electorate. Whenever there is a General Election, these parties (and any minor parties that may be in existence at the time) may all put up candidates for election; independent candidates may also stand. The electorate then indicates, by its choice of candidate[1] at the poll on election day, which of the opposing policies it would like to see put into effect.

The party which wins the majority of seats (although not necessarily the majority of votes) at a General Election forms the Government. By tradition, the leader of the majority party is appointed as Prime Minister by the Sovereign, usually on the formal advice of the retiring Prime Minister; and its most outstanding members in the House of Lords and the House of Commons receive ministerial appointments on the advice of the Prime Minister. The larger of the two minority parties becomes the Official Opposition with its own leader and its own council of discussion or 'shadow Cabinet'; while the members of any other parties or any Independents who have been elected may support the Government or the Opposition according to their party's or their own view of the policy being debated at any given time.

In the General Election which took place on the 26th May 1955, 76·8 per cent of the electorate voted, compared with 76·1 per cent in 1945, 84 per cent in 1950, and 82·6 per cent in 1951. The number of votes cast for the principal parties is shown in Table 3.

TABLE 3

VOTES CAST AT GENERAL ELECTIONS 1945–1955

Party	1945 (*a*)	1950 (*a*)	1951 (*a*)	1955
Labour (and Co-operative) ..	11,992,292	13,295,736	13,948,385	12,405,146(*b*)
Conservative and Supporters ..	9,960,809	12,501,983	13,724,418	13,311,938
Liberal	2,245,319	2,621,489	730,551	722,395
Communist	102,780	91,815	21,640	33,144
Others (*c*)	677,749	258,454	177,329	288,038

(*a*) Figures for 1945, 1950 and 1951 exclude those few constituencies for which candidates were returned unopposed. All seats were contested in 1955.

(*b*) Includes Northern Ireland Labour (35,614).

(*c*) 'Others' include Welsh and Scottish Nationalists, Independent Labour Party, other Independents, Irish Labour, Irish Nationalist, Irish Anti-Partitionist and Sinn Fein.

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[1] In the General Election of May 1955, the choice was between Labour and Conservative in most constituencies. In a few constituencies, two of the parties agreed to support the same candidate. Liberal candidates numbered 110, and the number of candidates representing other political parties was very small.

The distribution of seats in the House of Commons resulting from the General Elections of 1951 and 1955 is shown in Table 4.

TABLE 4

Seats Gained at General Elections in 1951 and 1955

1951	
Conservative and Supporters	320
Labour	295
Liberal	6
Others (*a*)	3
The Speaker	1
	625

1955	
Conservative and Supporters	346(*b*)
Labour	277
Liberal	6
The Speaker	1
	630

(*a*) Two Irish Nationalists and one Irish Labour Party.

(*b*) A majority of 61 (excluding the Speaker) over all other parties. This is the first time in 90 years that a Government in office has been returned with an increased majority. Sinn Fein candidates headed the poll in two Northern Ireland constituencies, but as they were serving sentences of penal servitude (for taking part in an armed raid on an army barracks in 1954) they were legally incapable of becoming members of Parliament; the Ulster Unionist candidate was therefore returned in each case.

The effectiveness of the party system rests to a considerable extent upon the fact that Government and Opposition alike are carried on by agreement: that is to say, the minority agrees that the majority must govern and, therefore, accepts its decisions; and the majority agrees that the minority should criticize and, therefore, sets time aside for that criticism to be heard. As far as is compatible with effective government, the Prime Minister meets the convenience of the Leader of the Opposition and the Leader of the Opposition meets the convenience of the Prime Minister. Through the respective Whips there is a measure of agreement on the subjects to be debated and on the time to be allowed; sometimes even on the information to be provided and the proposed line of attack. In this way, Parliament has a chance of hearing a full discussion on policy from every point of view.

Outside Parliament, party control is exercised by the national and local organizations; inside Parliament, it is exercised by the Whips, who in addition to their other functions are expected to keep their forces effective by all means in their power. For the Government, this work is done by the Parliamentary Secretary to the Treasury, the Junior Lords of the Treasury, and the political officers of the Household—the Treasurer, the Comptroller and the Vice-Chamberlain. The Opposition Whips have no official position and are not paid from public funds, but their parliamentary duties are the same.

Parliamentary Procedure

Parliamentary procedure is based on forms and rules, many of which date back to the beginning of the sixteenth century and even earlier.

Each House has its own Standing Orders, but the system of debate is much the same in the two Houses, except that in the House of Commons the Speaker has a much greater measure of control. In the House of Lords, the office of Speaker could be held by a commoner, since the Woolsack on which the Lord Chancellor sits as Speaker is technically outside the precincts of the House. In fact, the office is always held by a peer, but it carries with it only a limited authority to check or curtail debate. The Lords, unlike the Commons, claim the right to overrule their Speaker forthwith on issues of procedure.

In the Commons, the Speaker has the prime duty of controlling debate. It is his responsibility to see that parliamentary time is used to the best possible advantage and, therefore, although he must carefully guard against abuse of procedure or any infringement of minority rights, he has power to limit unreasonable obstruction and his rulings on points of order cannot be challenged at the time. The Speaker has the right to allow or disallow a closure motion (i.e. a motion to curtail or end discussion so that the matter may be put to the vote), to check irrelevance in debate, and to refuse to admit delaying tactics. In cases of grave and continuous disorder, he may even adjourn the House or suspend the sitting.

Voting in the House of Commons is carried out under the direction of the Speaker, and it is his duty to pronounce the final result. If an equal number of votes is cast, the Speaker must give the decisive vote; he does this in such a way as to avoid change and leave the question to be debated on another occasion.

The Speaker has the responsibility of deciding what is a Money Bill (a Bill dealing only with national taxation and finance, see p. 31); and who, in case of doubt, is the Leader of the Opposition. He is also responsible for such extraneous matters as the decision whether a *prima facie* case has been made against persons accused of breach of privilege; the issue of warrants for elections to fill vacancies in the House; and the appointment of the chairmen of the Standing Committees.

All proceedings of either House (except secret sessions) are public, and a verbatim record is published daily in the official reports *Parliamentary Debates* (*Hansard*).

Parliamentary Functions

The main functions of Parliament today are (*a*) to make laws regulating the life of the community, (*b*) to take formal action, cast in legislative form, to make available finance for the needs of the community and to appropriate the funds necessary for the services of the State, and (*c*) to criticize and control the Government (see pp. 33–34). By custom, Parliament is also consulted before the ratification of certain international treaties and agreements, in spite of the fact that the making of treaties is a Royal Prerogative (see pp. 21 and 22) exercised on the advice of the Government which, strictly speaking, is under no obligation to obtain parliamentary approval at all. In practice, there are two types of agreement about which Parliament is consulted: treaties which could not be implemented without legislation; and treaties of such political importance that the Government feels obliged to arrange a debate on the matter before becoming committed. In the case of other treaties requiring ratification, it is customary to presume parliamentary acquiescence unless disapproval is expressed within 21 days from the date on which the treaty was laid before Parliament.

In the past, legislation was initiated from both sides of the House; but in present-day practice almost all Bills are brought forward by the Government in power as a result of policy decisions taken in the Cabinet at the instigation of those Government Departments which will be responsible for their administration when the Bills become law. The chief exceptions are Private Bills,[1] which relate solely to some matter of individual, corporate or local interest, and Private Members' Bills, which are Public Bills introduced by members on their own initiative on certain days set aside expressly for the purpose.

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[1] Such Bills begin with a petition, and promoters must give notice of their intention to all persons and bodies whose interests may be affected by their proposals. Committees are small, consisting of five members in the Lords and four members in the Commons. The committee stage is quasi-judicial and provision is made for counsel to represent supporters and opposers of the Bill.

Bills may be introduced in either House, unless they deal with finance or representation, when they are always introduced in the Commons. As a rule, however, no Bills likely to raise much political controversy are introduced in the Lords, as the House of Commons is considered a more suitable place of origin for measures of that kind.

The process of passing a Public Bill is the same in the House of Lords as in the House of Commons: the Bill receives a formal First Reading on introduction; it is then printed; and after a period of time (which varies between one and several weeks depending on the nature of the Bill) it may be given a Second Reading as the result of a debate on its general merits or principles. It is then referred either to one of the Standing Committees appointed for the purpose by the Committee of Selection[1] and composed of members of all parties in the same proportion as in the whole House, or, in the case of more important measures, to the whole House sitting in Committee if the House so decides on a motion. During the Committee stage, members may suggest appropriate amendments, which will be incorporated into the Bill if the majority of the Committee agrees. When this stage is finished, the Bill is reported to the House, and a further debate takes place during which the Committee's amendments may be altered, additional amendments may be suggested and incorporated, and, if necessary, the Bill may be recommitted to Committee. Finally, it is submitted for a Third Reading and, if passed, it is sent on from the Commons to the Lords or from the Lords to the Commons (depending on its place of origin), where it enters on the same course again.

An exception to this procedure is made in the case of Money Bills, of which the two most important are the Finance Bill, which authorizes annual taxation and amends existing taxation, and the Appropriation Bill, which authorizes expenditure on the Supply Services from the Consolidated Fund.[2] As a general rule, these Bills must be introduced in the House of Commons upon Resolutions in a Committee of the whole House and, since their purpose is to raise money for the Crown as a means of providing for payment of the various services performed by the Crown, they may be initiated only by a Minister of the Crown.

All Bills which have passed through their various parliamentary stages are sent to the Sovereign for Royal Assent, which is automatically given either by the Sovereign in person or (usually) by commission. The right of veto has not been exercised since the early eighteenth century.

The majority of Bills introduced in the House of Lords pass through the Commons without difficulty because of their non-controversial nature; and they are then returned to the Lords to be brought forward for Royal Assent. However, should any Lords Bill be unacceptable to the Commons, it would never reach the Statute Book, for no debating time would be allotted to it—at any rate until a new Government came into power, when it might be revived. The Lords, on the other hand, are unlikely to be able to prevent a Bill passed in the Commons from becoming law. In the normal course of events, they either accept a Bill from the Commons and return it unchanged; or they amend it and return it for the consideration of members of the other House, who frequently agree to the amendments made. They cannot require the Commons to agree to amendments; nor can they delay a Bill indefinitely. They have no powers in respect of Money Bills; and since the passing of the Parliament Act, 1949, any other Bill which has been passed by the House of Commons in two successive sessions may be presented for Royal Assent without the consent of the Lords, provided that a year has elapsed between the date of the Second Reading of the Bill in the Commons and the date on which it is finally passed in that House. These limitations to the powers of the Lords are based on the fundamental principle that the function of the Upper House, which is a non-representative assembly, is not to thwart the will of the people, but to use the combined experience and wisdom of its members to ensure that that will is precisely and reasonably interpreted.

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[1] A body of 11 members nominated at the beginning of every session by the House in proportion to party strength in the Commons.

[2] See also p. 278.

Parliamentary Committees

There are three kinds of Parliamentary Committee, all of which exist to a varying degree to relieve the full assembly of Parliament of some of the details of its more specialized and complex work. They are: regular Standing Committees (see p. 31) which are concerned with current legislation; official Parliamentary Committees such as the Committee of Privileges and the Select Committees on Public Accounts (see p. 279), on Estimates (see p. 280), on Statutory Instruments, and on the Nationalized Industries (see p. 137), which are concerned with particular aspects of parliamentary work; and a number of informal committees, consisting of members either of one party or of all parties, such as study groups concerning themselves with particular issues (e.g., the Parliamentary and Scientific Committee, see p. 384), parliamentary party committees (e.g., the Labour Policy Committee) and backbenchers'[1] organizations (e.g., the Conservative Members' Committee, known as the 1922 Committee). These groups have grown up spontaneously and have a varying degree of influence upon the development of Government policy.

Delegated Legislation

Delegated legislation, which is legislation not by Act of Parliament but by Orders-in-Council, Orders, Warrants, Regulations and Rules, has been part of the parliamentary system for at least six hundred years. One of the earliest recorded examples is to be found in a statute of 1337 which laid down that no wool should be exported from England 'till the King and his Council do otherwise provide'. Parliament, however, made but sparing use of its power to delegate legislation (except during a period of social, political and economic change in the second half of the fifteenth and most of the sixteenth centuries) until the end of the nineteenth century, when a changing conception of the part to be played by the State in the life of the community made inroads upon parliamentary time and thus caused the system to be adopted on a more extensive scale. With the ever-increasing scope of Government activity in domestic affairs during the past fifty years, pressure on parliamentary time has become even more acute; as a result the system of delegated legislation has become generally accepted and there are at present few Acts of Parliament which do not contain provisions for its use.

The advantages of the system of delegated legislation, which empowers ministers and other authorities to regulate administrative details after a Bill has become an Act, are said[2] to be: (1) that it shortens and clarifies Bills before Parliament, thus enabling Parliament to deal with a greater volume of business and to give fuller attention to matters of policy and principle which are its primary concern; (2) that it encourages flexibility, for administrative details can be worked out as and when the necessity arises 'with greater care and minuteness, and with better adaptation to local and other special circumstances than they possibly can be during the passage of a Bill through Parliament'; (3) that it is invaluable in an emergency, for it is 'the means by which the legislature can dispense with its own deliberative procedure and arm the executive with power to take immediate action'; and (4) that it provides a speedy, convenient and accurate means of giving effect to the policy of Parliament.

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[1] Members who are neither ministers nor, as a rule, ex-ministers.

[2] From an official minute written in 1893 and quoted in *Concerning English Administrative Law*, by Sir C. T. Carr. Oxford University Press. 1942. pp. 33–34.

In order to minimize the risk—inherent in the system—that delegated legislative powers might supersede or weaken parliamentary government, such powers are normally delegated to the Queen-in-Council or to authorities directly responsible to Parliament—to Ministers of the Crown, to Government Departments for which ministers are responsible or to organizations whose legislation is subject to confirmation or approval by ministers who thereby become responsible to Parliament for it. Moreover the Acts of Parliament, by which particular powers are delegated, frequently provide for some measure of parliamentary control over the legislation made in exercise of them. There are cases in which an instrument[1] must be approved by Parliament or the House of Commons before it can have permanent operation ('affirmative resolution procedure'), or in which Parliament or the House of Commons may secure the annulment of an instrument by a resolution passed within a certain number of days of the instrument being laid before it ('negative resolution procedure'), and others in which drafts of proposed instruments must be laid before Parliament or the House of Commons before they are made and must then be subject either to affirmative or negative resolution procedure. The resolution, in the case of an instrument to be annulled after it has been made, takes the form of a Prayer to Her Majesty that the instrument be annulled (after which the instrument may be annulled by Order-in-Council).

As a further safeguard, the principal Act generally defines the precise limits of delegated legislative power; and if these limits are surpassed, the courts can be moved to declare that the action taken is *ultra vires*. Certain Acts also require direct consultation with organizations which will be affected by delegated legislation before such legislation is made.

Parliamentary Control

Parliament's function of controlling the Government in power is exercised in the final analysis by the power of the House of Commons to pass a resolution of 'no-confidence' in the Government, or to reject a proposal which the Government considers so vital to its policy that it has made it a 'matter of confidence'; and thus to force the Government to resign.

The financial control necessary to ensure that money shall be spent only with the authority of Parliament and for the purposes authorized by Parliament is described on pp. 277–81. Methods of general control are provided by:

(1) the institution of Question Time, which is a daily hour of parliamentary time during which members may question any minister on matters for which that minister is responsible, and may thus focus the attention of the public on the day-to-day processes of government;

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[1] Almost all delegated legislation of the central Government is enacted by means of 'statutory instruments', made in accordance with the provisions of the Statutory Instruments Act, 1946, which repealed and replaced the Rules Publication Act, 1893. Instruments of delegated legislation made under the Act of 1893 were known as 'statutory rules and orders' ('S.R. & O.').

(2) the practice whereby the consideration of the Estimates in Committee of Supply[1] has ceased to be a consideration of the financial requirements of the Government and has become an occasion, initiated by the Opposition, for the examination of the Government's administrative policy[2];

(3) the practice of bringing on a debate by moving the adjournment of the House, which is permitted only if the matter is deemed by the Speaker to be definite and urgent and to be the responsibility of the Government, and if 40 members rise in their places to support it, or 10 members rise and the House grants leave on a division;

(4) the right of members to raise any matter on the motion for the adjournment of either House at the end of each day's sitting; and

(5) the power to confirm or annul ministerial Orders and Regulations (see pp. 32–33).

In addition, Government policy and action are fully discussed in the important debates which take place during the proceedings at the opening of Parliament and in the motion for the adjournment of the House before a recess.

The Northern Ireland Parliament

The Northern Ireland Parliament was created by the Government of Ireland Act, 1920. It is federal in type and consists of the Sovereign, a Senate and a House of Commons. The Sovereign is represented in Northern Ireland by a Governor, who summons, prorogues and dissolves Parliament in Her Majesty's name; the Senate is composed of two *ex-officio* Senators (the Lord Mayor of Belfast and the Mayor of Londonderry) together with 24 Senators elected by the House of Commons according to the principle of proportional representation; and the House of Commons consists of 52 members, elected by a system of parliamentary franchise similar to that which operates in the United Kingdom. The House, unless sooner dissolved, continues in existence for a period of five years.

The Northern Ireland Parliament has power to make laws for the peace, order and good government of Northern Ireland in relation to all matters except those especially reserved to the Parliament of the United Kingdom, i.e. the Crown or succession to the Crown; foreign relations; defence; the postal services; the judiciary; customs and excise; income and profits taxes; coinage; standards of weights and measures; trade marks; submarine cables; wireless telegraphy; aerial navigation; and lighthouses, buoys and beacons. The Northern Ireland Parliament is also prohibited from making laws which would interfere with religious freedom, and from taking property without compensation.

In consequence of these reservations, provision was made in the Government of Ireland Act for the continued representation of the Northern Ireland constituencies in the House of Commons of the United Kingdom; by virtue of this provision, 12 members are returned to Westminster.

THE PRIVY COUNCIL

Before the emergence of the system of Cabinet government in the eighteenth century, the King-in-Council or the Privy Council was the chief source of executive power in the State. As this system developed, however, the Privy Council declined in importance; many of its powers were transferred to the Cabinet, and much of its work was handed over to newly created Government Departments. The present-day Privy Council exists mainly to give effect to policy decisions made elsewhere.

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[1] See p. 278.

[2] Such an examination must relate to a matter included in the Estimates.

Apart from Cabinet Ministers, who must be Privy Counsellors and are sworn of the Council on first assuming office, membership of the Privy Council (which is retained for life) is accorded by the Sovereign on the recommendation of the Prime Minister as an honour to persons who have reached eminence in some branch of public affairs in any country of the Commonwealth. In mid-1955 there were just under 300 Privy Counsellors.

Procedure and Functions

The Privy Council is convened by the Clerk to the Council. At meetings where the Sovereign is present, three Privy Counsellors form a quorum, but in practice never fewer than four are summoned to attend. The whole Privy Council is called together only on the death of the Sovereign or when the Sovereign announces his or her intention to marry.

Meetings of the Privy Council are presided over by the Lord President of the Council, who is appointed by Letters Patent under the Great Seal. The duties of the Lord President in connection with the Privy Council are to attend the Sovereign's person, to manage the debates in council, to put forward proposals from the Sovereign at the council table and to report to the Sovereign the resolutions of the Council thereon. Since 1660 the office of Lord President has been a political appointment held by a member of the party in power, who is usually a leading member of the Cabinet, free to undertake duties of a general nature.

The Privy Council is responsible for the making of Orders-in-Council, of which there are two kinds differing fundamentally in constitutional principle: those made in virtue of the Royal Prerogative as, for example, in the ratification of treaties; and those which are authorized by Act of Parliament and are a form of delegated legislation (see pp. 32–33). Members of the Privy Council attending meetings at which Orders-in-Council are made do not thereby become personally responsible for the policy upon which the Orders are based; this rests with the ministers in whose Departments the draft Orders were framed, whether they are present at the meeting or not. All Orders-in-Council must be published in the *London Gazette*.[1]

The Privy Council also advises the Crown on the issue of Royal Proclamations—documents whose lawful use is restricted to prerogative acts such as summoning, proroguing or dissolving Parliament, and which are of the same validity as Acts of Parliament.

Committees of the Privy Council

Advisory functions still belong to the committees of the Council, whose meetings differ from the meetings of the full Council in that the Sovereign cannot constitutionally be present. These committees may be prerogative, such as the committee which deals with matters relating to Jersey and Guernsey, and the committees for medical research, scientific and industrial research, agricultural research and nature conservation; or they may be provided for by statute as are those for the universities of Oxford and Cambridge and for the Scottish universities, and that which deals with applications for the grant of charters to municipal corporations.

The Privy Council Office

The administrative work of the Privy Council committees is carried out in the Privy Council Office, which is an ancient prerogative Department under the control of the Lord President of the Council. It is also carried out in the Office of the Lord President of the Council.

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[1] An official periodical published by the authority of the Government.

Judicial Committee of the Privy Council

The Judicial Committee of the Privy Council is the final court of appeal on certain legal issues arising in Australia and New Zealand and their dependencies, in Ceylon, and in the United Kingdom dependent territories.[1] Its appellate jurisdiction derives from the principle of English common law which recognizes 'the right of all the King's subjects to appeal for redress to the King-in-Council' if they believe that the courts of law have failed to do them justice.

Appeals come to it either where a right of appeal in limited categories of cases has been specially created, e.g., by Statute, Order-in-Council or Letters Patent, or by special leave of the Queen-in-Council on the advice of the Judicial Committee. Appeals are heard by a board of three or five drawn from the committee, depending on the significance of the case, the quorum being three. Invitations to sit on the board are issued by the Lord Chancellor, who thus determines which members of the committee shall hear particular appeals. In practice, boards are generally selected from the Law Lords of the United Kingdom—the Lord Chancellor, ex-Lord Chancellors and Lords of Appeal in Ordinary—although ex-judges of English and Scottish courts are asked to sit when business is heavy. Chief Justices and certain judges from other Commonwealth countries have usually been sworn of the Privy Council and may be invited to sit on the committee's boards.

HER MAJESTY'S GOVERNMENT

Her Majesty's Government is the body of ministers charged for the time being with the administration of national affairs.[2]

Composition

The composition of the Government is subject to variation from time to time, both in the number of ministers and in the titles of some offices. The usual ministerial offices may be classified under the following heads:

(1) *The Prime Minister* (see also pp. 37–38), who is the recognized head of the Government but has no Department.

(2) *Departmental Ministers*, some of whom are known as Secretaries of State. There are at present seven Secretaries of State—for the Home Department, Foreign Affairs, Scotland, Commonwealth Relations, Colonies, War, and Air. Most of the more recently created posts have the formal title of 'Minister'. There are Ministers of Agriculture, Fisheries and Food; Defence; Education; Fuel and Power; Health; Housing and Local Government; Labour and National Service; Pensions and National Insurance; Supply; Transport and Civil Aviation; and Works. A few of the older posts have special titles: the Chancellor of the Exchequer (who is responsible for the Treasury and for a number of other financial and central Departments); the President of the Board of Trade; the First Lord of the Admiralty; and the Postmaster-General.

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[1] Until 1949, right of appeal to the Judicial Committee of the Privy Council also existed in Canada, India, South Africa and Pakistan, but these countries then abolished the right. The Republic of Ireland abolished the right by the Constitution (Amendment No. 22) Act, 1933.

[2] See pp. 28–29, *The Party System*.

(3) *Non-Departmental Ministers*, or Ministers with few or no departmental duties, who are the holders of various traditional offices, e.g., the Lord President of the Council,[1] the Lord Privy Seal, the Chancellor of the Duchy of Lancaster[2]; and, at present, a Minister Without Portfolio.

(4) *The Lord Chancellor and the Law Officers*. The Lord Chancellor has a Department, but is in a somewhat special position as a Minister of the Crown who is also head of the Judiciary in England and Wales. The four Law Officers of the Crown are: for England and Wales, the Attorney-General and the Solicitor-General; for Scotland, the Lord Advocate and the Solicitor-General for Scotland.

(5) *Ministers of State*,[3] who are deputy Ministers in Departments where the work is particularly heavy or involves frequent travelling overseas. There are at present five Ministers of State.

(6) *Junior Ministers*, who generally have the title of Parliamentary Secretary or, where the senior minister is a Secretary of State, Parliamentary Under-Secretary of State. The primary function of most junior ministers is to relieve their senior ministers of some of their burden by taking part in parliamentary debates and answering parliamentary questions, and by assisting in their departmental duties. The Parliamentary Secretary to the Treasury and the Junior Lords of the Treasury are in a different category as Government Whips (see p. 29).

All senior ministers are appointed by the Crown on the recommendation of the Prime Minister.

The majority of ministers are members of the House of Commons, since the approval of that House is necessary for the general policy (and frequently for the specific proposals) of the Government. There must, however, always be some ministers in the House of Lords, partly because the Ministers of the Crown Act, 1937, limits the number of ministers who may sit in the Commons while receiving salaries from the Crown, and also because every Government must be assured of spokesmen of standing to expound and justify its intentions and its actions to the Lords.

The Prime Minister

The office of Prime Minister as head of the Government has been in existence since the middle of the eighteenth century. The office is a conventional one in that it is not defined by statute or rule of common law, and the Prime Minister's official title is First Lord of the Treasury. In 1905, however, the Prime Minister was given precedence as the fourth person in the realm after the Royal Family.[1] The unique position of authority enjoyed by the Prime Minister derives on the one hand from his status as leader of the majority party in Parliament and on the other from his power to submit his own choice of ministers to the Sovereign and to obtain their resignation or dismissal individually.

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[1] The Lord President of the Council, who controls the Privy Council Office, is responsible to Parliament for the work of the Department of Scientific and Industrial Research, the Medical Research Council, the Agricultural Research Council, the Nature Conservancy and the Atomic Energy Authority, and has a general oversight of scientific questions.

[2] The Duchy of Lancaster is an inheritance which, since 1399, has always been enjoyed by the reigning Sovereign, although kept quite apart from his or her other possessions and separately administered. Full power to manage and control the Duchy is delegated by the Sovereign to the Chancellor, who is the chief officer of the Duchy Council. The Chancellorship is now a political appointment carrying with it Cabinet rank. Since the Duchy duties of the Chancellor are not onerous, he is free to perform any special functions which may be entrusted to him by the Prime Minister.

[3] Departments which have a Minister of State are the Foreign Office (two), the Colonial Office and the Board of Trade. The Secretary of State for Scotland also is assisted at ministerial level by a Minister of State.

It is the duty of the Prime Minister to inform the Crown of the general business of the Government; to preside over the Cabinet; to exercise a general supervision over Departments, settling Departmental differences where possible and approving important Departmental decisions where Cabinet reference is not required; to be prepared to speak in Parliament both on general subjects and on the most important Government Bills; and to answer to Parliament for all actions of the Government, both at home and abroad. Only the Prime Minister can recommend to the Sovereign a dissolution of Parliament if he wishes to put the Government's policy to the country before the normal time for a General Election has come. The Prime Minister's other responsibilities include recommending the appointment of Church of England archbishops, bishops, some senior dignitaries, and incumbents of Crown livings, as well as that of the Lord Chief Justice and of the holders of other high judicial offices, Lords Lieutenant of Counties,[2] Trustees of National Museums and Regius Professors in certain universities. He also makes recommendations for the awards of most civil honours and distinctions.

The Cabinet

The Cabinet is a conventional organ of government composed of a number of ministers selected by the Prime Minister. Membership is not fixed by statute, although certain ministers are always appointed; the number of members is now usually less than 20.

The system of Cabinet government came into being as one of the results of the passing of the Bill of Rights in 1689. In origin it was an informal gathering of those Privy Counsellors who were also ministers, meeting at first with, and later without, the Sovereign. The Cabinet assumed its present shape when the accession of the Hanoverian kings with their limited knowledge of the English language, the British constitution and the British way of life had severely curtailed the personal participation of the Sovereign in executive government and made it essential that a substitute should be found.

The Cabinet is not in itself an executant in that it has no legal authority, its decisions being valid by convention and not by law. It is designed to formulate general policy, to bring about co-operation between the different forces of the State without interfering with their legal independence, and to exercise general control. Its functions[3] are:

(1) the final determination of the policy to be submitted to Parliament;

(2) the supreme control of the national executive in accordance with the policy agreed by Parliament;

(3) the continuous co-ordination and delimitation of the authority of the several Departments of State.

In the performance of its functions the Cabinet makes considerable use of a system of committees. The beginnings of this system can be traced back to the

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[1] Above him in order of precedence are the Archbishops of Canterbury and York, and the Lord Chancellor.

[2] See footnote, p. 75.

[3] As defined in the Report of the Machinery of Government Committee (Haldane Committee) *Cd.* 9230. 1918.

The countryside of south-west England: an Exmoor farmstead near Cutcombe, Somerset.

Cricket on the village green at Bearsted, Kent.

Snowdon and Llyn Padarn,
North Wales.

A loch in the Highlands of Scotland: Loch Long, Wester Ross.

nineteenth century and it has been developed to keep pace with government business during the past fifty years. The system involves the reference of any issue either to one of the standing Cabinet committees or to an *ad hoc* committee composed of the ministers primarily concerned, which considers the matter in detail and either disposes of it or reports upon it to the full Cabinet with recommendations for action.

Cabinet Meetings

The Cabinet meets in private and its proceedings are strictly confidential. Its members are bound by their oath as Privy Counsellors not to disclose any information. The Official Secrets Acts forbid the publication of Cabinet as well as of other State papers, and a resigning minister desiring to make a statement involving disclosure of Cabinet discussions must first obtain the permission of the Sovereign through the Prime Minister. The theoretical reason for this secrecy is that a Cabinet decision is advice to the Sovereign, whose consent is necessary before it is made public. From a practical point of view, secrecy is essential in the interests of unprejudiced debate, which can take place only if there is no risk of publicity for every statement made and every point conceded.

In normal times, the Cabinet meets for about two hours once or twice a week during parliamentary sittings, and rather less frequently when Parliament is not sitting. Additional meetings may be called by the Prime Minister at any time if a matter urgently requiring discussion should arise. During Cabinet meetings, decisions are reached on major issues of Government policy, and the Cabinet settles any matters which cannot be disposed of at lower levels.

Ministers not in the Cabinet are called to attend Cabinet meetings when matters affecting their Departments are under discussion; they may also be members of Cabinet committees.

Detailed accounts of Cabinet meetings are not prepared; only the substance of documents submitted, together with a summary of the arguments and the conclusions, are recorded; and even these records have a strictly limited circulation. Responsibility for the keeping of records lies with the Secretariat of the Cabinet, known as the Cabinet Office (see p. 41).

Ministerial Responsibility

Ministerial responsibility means both the collective responsibility which ministers share for the policy and actions of the Government and the individual responsibility of ministers to Parliament for the work of their Departments.

The doctrine of collective responsibility, which was fully accepted by the middle of the nineteenth century, imposes upon ministers the obligation to act not as individuals but (in the interests of stability of government) as a united group. It does not require every Cabinet minister to be present at every Cabinet meeting; and the obligations of individual ministers may be passive rather than active when the decision to be taken does not relate to their spheres of administrative responsibility. At the same time, every minister should be fully informed of the subject of discussion beforehand, so that if he has any objections he may voice them at the meeting. He may not repudiate, either in Parliament or in his constituency, policies which have received Cabinet approval, nor may he adopt policies which have not been agreed with other Departments (including the Treasury) who may be concerned. He must be prepared to vote with the Government on all issues, and where necessary to speak in support or defence of its policy. Any minister who feels himself unable to agree or to compromise with the view of the majority of his colleagues in Parliament or elsewhere must resign. If he does not resign, he is held to be responsible, and cannot afterwards reject criticism on the ground that he did not personally agree with the policy adopted.

The doctrine of collective responsibility also means that the Cabinet is bound to offer unanimous advice to the Sovereign, even when its members do not hold identical views on a given subject.

The individual responsibility of a minister for the work of his Department means that, as political head of that Department, he is answerable for all its acts and omissions and must bear the consequences of any defect of administration, any injustice to an individual or any aspect of policy which may be criticized in Parliament, whether he is personally responsible or not.

Since the majority of ministers are members of the House of Commons, they are available to answer questions and to defend themselves against criticism in person. Ministers who are in the House of Lords must be represented in the Commons by political subordinates qualified to speak on their behalf, i.e. by their Parliamentary Secretaries and Under-Secretaries. Responsibility, however, cannot be delegated and remains with the senior minister concerned.

Ministers are expected to take all decisions relating to their spheres of administration, unless these are of such political importance that in their opinion Cabinet sanction is required.

If any departmental decision brings a minister under fire of criticism in Parliament he may be upheld by the Cabinet, which will then treat the matter as one of confidence in itself; or he may be disowned, when he alone will be liable to lose office.

Ministerial responsibility is an effective way of bringing government under public control, for the knowledge that any departmental action may be reported to and examined in Parliament discourages the taking of arbitrary and ill-considered decisions.

GOVERNMENT DEPARTMENTS

Government Departments exist for the most part to assist ministers in the discharge of their functions by providing information and advice as a basis for the formation of policy, and by putting that policy into effect when the necessary legislation has been passed. Both in their advisory and executive capacities Government Departments may and frequently do work with and through local authorities (see p. 63), public corporations (see pp. 130 and 136–7), and many Government-sponsored organizations which, while not forming part of Government Departments, are under varying degrees of Government control.

A change of Government does not generally affect the number or functions of Government Departments, although a radical change in policy may be accompanied by a corresponding change in the Departments concerned. The widening scope of Government activity has, however, led to the formation of a substantial number of new Departments in the past half-century. A few have existed for over 200 years.

The work of some Departments, e.g., the Post Office and the Customs and Excise Department, covers the United Kingdom as a whole. Other Departments cover Great Britain (England and Wales, and Scotland, but not Northern Ireland), e.g., the Ministry of Labour and National Service; others cover England and Wales only, e.g., the Ministry of Health, and there are similar but separate Departments for Scotland and Northern Ireland. Some Departments, e.g., the Ministry of Education, make special arrangements for Welsh affairs.

Departments differ in size and in the number, type and complexity of their functions, and some have regional and local offices. Most Departments have a minister of their own in control; a very few have no minister responsible to Parliament, e.g., the Exchequer and Audit Department under the Comptroller and Auditor General, who is an officer of Parliament and not of the Government; and some are in charge of ministers who have other duties. For instance, Treasury ministers are responsible for the administration of a number of Departments, including H.M. Stationery Office, the Central Office of Information, the Treasury Solicitor's Department, the Central Land Board, the Departments of the Government Actuary and of the Government Chemist, the Royal Mint, the National Debt Office, the Public Works Loan Board, the National Savings Committee and certain museums and art galleries.

This section provides an outline of the principal functions of the main Government Departments. Since much of their work is interconnected, they are not grouped according to the subjects with which they deal, but are arranged in alphabetical order, except for the Cabinet Office and the Treasury (which, in view of their central position, are placed first) and the Scottish and Northern Ireland Departments, which are grouped at the end of the section. Further information on the work undertaken by the various Departments is given in later sections of this handbook under the relevant subject headings.

The Cabinet Office

The Cabinet Office, or Secretariat of the Cabinet, was introduced as an emergency institution during the first world war and has grown into an organ of great importance in the co-ordination of policy at the highest level. The Secretariat is responsible for the keeping of Cabinet records, for providing information and advice to ministers, and for issuing directives or promulgating decisions of the Cabinet or the Prime Minister to the Departments concerned. It has a military side and a civil side. There is also a *Central Statistical Office* which is charged with the collection, analysis and presentation of statistics relating to the national economy.

The Treasury

Nominally the heads of the Treasury are the Lords Commissioners: the First Lord of the Treasury (who is now invariably the Prime Minister), the Chancellor of the Exchequer and five Junior Lords. In practice the Lords Commissioners never meet as a Board and their responsibilities are carried by the Chancellor of the Exchequer assisted by two junior ministers, the Financial Secretary and the Economic Secretary. There is also a Parliamentary Secretary to the Treasury who is the Chief Government Whip in the House of Commons (see p. 29).

The functions of the Treasury fall under four main headings: finance, control of expenditure, general Civil Service establishment matters, and co-ordination of economic policy. Finance may be further sub-divided into home finance and oversea finance. Home finance includes taxation policy (though executive responsibility for the collection of revenue lies with the Board of Inland Revenue and the Department of Customs and Excise), the provision of funds for the day-to-day needs of the public services, currency and banking, and the management of the national debt. Oversea financial questions have formed a greatly increased part of the Treasury's work since the second world war because of the post-war emphasis on the problem of the balance of payments.

Control of expenditure is a matter partly for Parliament, partly for the Treasury, and partly for the Departments themselves. Treasury control arises very largely out of Parliamentary control and the scrutiny of detailed annual estimates for the great majority of Government expenditure. The Treasury responsibility in general Civil Service questions has developed gradually out of the control of expenditure.

In the last ten years the Treasury has acquired a new function of co-ordination in economic affairs. This has come about for two reasons: the acceptance by successive Governments since the war of responsibility for maintaining full employment, and the need to safeguard the balance of payments by ensuring that economic resources are directed to essential ends.

Attached to the Treasury is the Office of the Parliamentary Counsel, in which Government Bills are prepared for introduction into Parliament.

The Admiralty

The Board of Admiralty has been in existence since 1708. It is served by the Admiralty Divisions of the Naval Staff and the Admiralty Departments. The Divisions of the Naval Staff deal with operational and technical policy. The Departments deal with the manning of the ships and establishments; the provision of warships and other vessels, aircraft, weapons and munitions, stores, fuel and other goods, equipment and reserve forces; the general organization and administration of the Fleets and establishments; and the accounting and administration of the moneys voted by Parliament for these purposes.

The Admiralty is also responsible for the Government's economic policy in the shipbuilding and ship repair industries and certain minor allied industries.

The Ministry of Agriculture, Fisheries and Food

The Ministry of Agriculture, Fisheries and Food was established by Order-in-Council in April 1955 and assumed the responsibilities previously discharged by the Ministry of Agriculture and Fisheries and the Ministry of Food.

The Department has a general responsibility for food supplies, both home produced and imported, for food manufacture and food distribution. Its statistical work ranges from crop returns to analyses of food production and distribution, or analyses of the diet of various sections of the population; and its economic appraisements range from the annual review of farm prices to assessments of food and agricultural imports in relation to the country's balance of payments.

The Department is responsible generally for the efficiency of the agricultural, horticultural and fishing industries in England and Wales.[1] This involves supervision over County Agricultural Executive Committees who act locally as the Minister's agents; the administration of schemes to improve the quality of livestock, to control or eradicate animal diseases, to control pests, and to facilitate production on marginal land; the provision of technical advice on all aspects of food production; responsibility for agricultural education, for research as applied to agriculture, horticulture and fisheries, and for such questions as land drainage, the enforcement of agricultural wages awards and labour supply. With other Government Departments, the Department is concerned with the improvement of such rural services as housing, farm buildings, water supplies and electricity, and with the supply of machinery, fertilizers and seeds.

The Department administers in England and Wales the guarantees to farmers under the Agriculture Act, 1947; and in this connection it operates deficiency payments schemes for fatstock and for the main cereal crops, and a support price scheme for eggs. It is also generally responsible for schemes for milk, potatoes and wool operated through producers' marketing boards. Other subsidies operated by the Department include those on bread and on the 'welfare foods' (liquid and dried milk, orange juice, and cod liver oil) for mothers and young children.

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[1] For the operational control of epidemic diseases of animals, e.g., foot-and-mouth disease, and for the control of plant diseases and pests the Ministry's responsibilities also extend to Scotland.

The Ministry has primary responsibility for administering part of the food and drugs legislation, in particular that part dealing with the composition of food and with labelling and advertising. It is responsible for matters concerning slaughterhouses and for the inspection of meat, and for enforcing legislation relating to the quality and cleanliness of milk.

The Department maintains relations with Commonwealth and other oversea countries interested in the United Kingdom as a market for their food exports; and operates such schemes as the Commonwealth Sugar Agreement. It contributes to the work of a number of international bodies including the Food and Agriculture Organization of the United Nations, the Organization for European Economic Co-operation, and, for food defence planning purposes, the North Atlantic Treaty Organization.

The Department is also responsible for the Ordnance Survey and for Kew Gardens.

The Air Ministry

The Air Council was established in 1918 under the presidency of the Secretary of State for Air to provide for the growing importance of aircraft in warfare by taking over responsibility for the administrative control of the Royal Air Force. The functions of the Air Ministry include strategic planning; the manning of the Royal Air Force and its reserves and auxiliaries; the organization of flying, technical and general training; the acquisition of lands required for air force purposes; and the supervision of the finance and contracts of the Royal Air Force.

The Meteorological Office operates the State weather service. It has existed since 1855, at first under the Board of Trade, then as a self-contained unit, and since 1920 as a part of the Air Ministry. The Office provides meteorological services for the general public, Government Departments, the Armed Forces and civil aviation. It organizes meteorological observations in the United Kingdom and at certain stations overseas and undertakes the collection, publication and distribution of meteorological information from all parts of the world. Research is undertaken at Dunstable (Bedfordshire), Harrow (Middlesex) and London, and at observatories at Kew (Surrey), Eskdalemuir (Dumfriesshire) and Lerwick (in the Shetland Islands).

The Colonial Office

The Colonial Office is the Department of the United Kingdom Government which deals with the affairs of the great majority of the non-self-governing countries of the Commonwealth. At the head of the Colonial Office is the Secretary of State for the Colonies, who is the Minister responsible to Parliament for the general administration of those territories. The main functions of the Colonial Office are to convey to Colonial Governments the views and wishes of Her Majesty's Government on broad matters of policy; to see that the interests of Colonial Governments and peoples are safeguarded and promoted; to provide, through its staff of professional advisers and with the help of Advisory Committees composed of men and women eminent in many fields, guidance to Colonial Governments on a wide range of matters; and to undertake expert services of many kinds, including the allocation of moneys for development purposes under the Colonial Development and Welfare Acts and the provision of administrative and professional staff for the Oversea Civil Service. Other functions of the Colonial Office include the care of Colonial students in the United Kingdom, the British Council acting as agent in providing for their general welfare.

The Colonial Office does not directly administer the non-self-governing territories with which it deals. Each of these has its own administration and an increasing measure of autonomy.

Her Majesty's Oversea Civil Service. Members of this Service are employed in the public service of the territory in which they serve and are paid by the Government of that territory. The Service merges the former administrative and professional branches of the Colonial Service. Its members are eligible for employment in any post which the Secretary of State for the Colonies is requested or authorized to fill and may be considered, as opportunity offers, for posts in Commonwealth or foreign territories for which the United Kingdom Government may be invited to recommend candidates. Recruitment into this Service is undertaken in the United Kingdom and other Commonwealth countries when suitably qualified local candidates are not available for appointment to the territorial public service.

The Crown Agents for Oversea Governments and Administrations are appointed by the Secretary of State for the Colonies to act as commercial and financial agents in the United Kingdom for the Governments of the territories for which he is responsible. They also act by special arrangement for other Governments and bodies.

The Commonwealth Relations Office

The Commonwealth Relations Office is the main channel of communication between the United Kingdom Government and the Governments of the other member nations of the Commonwealth—Canada, Australia, New Zealand, South Africa, India, Pakistan and Ceylon. Through it, consultation and exchange of information takes place with the External Affairs Departments of those Commonwealth countries, either directly or through United Kingdom High Commissioners, on all subjects of mutual interest—foreign affairs, defence co-operation, economic and other matters. Where foreign policy is concerned, the Office works in close association with the Foreign Office.

The Commonwealth Relations Office is also responsible for the conduct of relations with the Federation of Rhodesia and Nyasaland[1] and for the administration of the High Commission Territories—Basutoland, the Bechuanaland Protectorate and Swaziland.

The Commonwealth Relations Office was established in 1947, replacing the Dominions Office (set up in 1925). In the same year the conduct of relations with India and Pakistan was transferred to the Commonwealth Relations Office from the India Office, which was abolished, and in 1948 the Office assumed similar responsibility in respect of Ceylon, which in that year became an equal member of the Commonwealth.

The Commonwealth Relations Office remains the Department responsible for the conduct of relations between the United Kingdom Government and the Government of the Irish Republic, which left the Commonwealth in 1949.

The Customs and Excise Department

Commissioners to collect the Customs and the Excise revenues were first appointed by the Long Parliament in 1643 (although after the Restoration the older method of collection through private contractors was again resorted to for a time). The two branches of the Revenue remained distinct until 1909, when they were amalgamated under Commissioners of Customs and Excise. The primary work of the Customs and Excise Department is to collect and administer the duties of Customs and Excise imposed from time to time in the annual Finance Acts or by other legislation, and to advise the Chancellor of the Exchequer on any matters connected with them. The Department is also responsible for preventing and detecting evasion of the Revenue laws, including smuggling and illicit distillation.

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[1] The Federation comprises the three territories of Southern Rhodesia, Northern Rhodesia and Nyasaland. Federal matters and Southern Rhodesian territorial matters are dealt with by the Commonwealth Relations Office, but territorial matters concerning Northern Rhodesia and Nyasaland are dealt with by the Colonial Office.

In addition to its revenue work the Department undertakes a wide range of non-revenue agency work for other Departments, e.g., the enforcement of prohibitions and restrictions on the importation and exportation of certain classes of goods, exchange currency control, and the compilation of United Kingdom oversea trade statistics from Customs import and export documents.

The Ministry of Defence

The Ministry of Defence was formally constituted in January 1947 following the passing of the Ministry of Defence Act, 1946. The Act charges the Minister with the responsibility for 'the formulation and general application of a unified policy relating to the armed forces of the Crown as a whole and their requirements'. He carries out this responsibility in accordance with general defence policy laid down by the Cabinet.

In addition to its main function of co-ordinating the policies and requirements of the three armed Services, the Ministry is responsible for the administration of certain inter-service organizations, such as Amphibious Warfare Headquarters, the Joint Intelligence Bureau and the Imperial Defence College.

The Ministry of Education

The Ministry of Education was established in 1944 to take over the powers and duties previously exercised by the Board of Education (1899–1944) in regard to the promotion of the education of the people of England and Wales and of the progressive development of institutions devoted to that purpose. The Ministry exercises this function in co-operation with the local education authorities—the councils of the counties and of the county boroughs—whose duty it is to secure the provision in their areas of adequate facilities for all forms of education. On professional matters, contact with the local education authorities is maintained through Her Majesty's Inspectorate of Schools, organized in regional divisions throughout England and Wales for its work of inspection, liaison and advice. A separate Welsh Department of the Ministry deals with education in Wales.

The Ministry is concerned with the development of primary, secondary and further education, including vocational education and education for leisure and the social and physical training of young people. It deals with the supply, training and superannuation of teachers; the building of new schools and other institutions; the school health service; the special educational treatment of handicapped children; and the provision of school meals and milk. It is responsible for the award of State scholarships and other awards for university students; for the administration of certain museums; and for the maintenance of educational relations with the countries of the Commonwealth, with foreign countries, and with the United Nations Educational, Scientific and Cultural Organization.

The Imperial Institute, which was founded in 1893, has since 1949 been the responsibility of the Minister of Education. The Institute houses permanent exhibitions of the peoples and products of the Commonwealth, shows films on

Commonwealth subjects, and does much educational work in co-operation with the schools. It also arranges lectures and conferences and has study and recreational accommodation for Commonwealth students. The Institute is financially dependent on an endowment fund and on grants from the United Kingdom and other Commonwealth Governments.

The Foreign Office

The Foreign Office, which is the headquarters of Her Majesty's Foreign Service, first became a separate Department of State in 1782. The Minister in charge of the Foreign Office, and responsible to Parliament for the conduct of foreign affairs and for the direction and operation of the Foreign Service, is styled Her Majesty's Principal Secretary of State for Foreign Affairs.

The Foreign Office acts as a channel of communication between the Government of the United Kingdom and the Governments of foreign States, either through the representatives of foreign States in the United Kingdom or through Her Majesty's representatives abroad, for the discussion and negotiation of all matters falling within the field of international relations, including the drawing up of international treaties and agreements. It also provides the means by which the United Kingdom Government is represented in the United Nations and on other international bodies and is kept informed of developments in foreign countries; by which British subjects and interests abroad are protected and trade promoted; and by which British policy is explained to the Governments and peoples of foreign countries. The questions dealt with by the Foreign Office are primarily of a political nature, but they also include many other matters such as questions of nationality, the issue and renewal of passports, and the immunities and privileges of foreign diplomatic representatives.

Her Majesty's Foreign Service. The Foreign Office is staffed by members of the Foreign Service, which is a separate and self-contained Service of the Crown formed in 1943 as a result of the amalgamation of the Foreign Office and the Diplomatic Service with the Consular and Commercial-Diplomatic Services. It provides an interchangeable staff for service both at home and at United Kingdom diplomatic missions and consular posts abroad.

The Forestry Commission

The Forestry Commission was established under the Forestry Acts, 1919–47, to promote the interests of forestry, the development of afforestation, and the production and supply of timber in Great Britain; the Forestry Act, 1951, places responsibility on the Forestry Commissioners for the maintenance of reserves of growing trees, through a system of licensing of felling.

The Minister of Agriculture, Fisheries and Food and the Secretary of State for Scotland are responsible for forest policy in Great Britain.

The Ministry of Fuel and Power

The Ministry of Fuel and Power was established in 1942, when it absorbed the former Mines and Petroleum Departments of the Board of Trade and the Board's functions in relation to gas and electricity. It was made permanent by the Ministry of Fuel and Power Act, 1945.

The Ministry has the general duty of ensuring the effective and co-ordinated development of fuel and power supplies in Great Britain, and of promoting economy and efficiency in their distribution and consumption. The business of producing and distributing gas and electricity and of producing coal is operated by the boards of the three nationalized industries, whose members are responsible to the Minister on policy issues. The distribution of coal and coke is carried out, under Ministry control, largely by private concerns. The Ministry is also responsible for Government relations with the petroleum industry.

The Acts and Regulations governing the safety and health of workers in and about coal mines, metalliferous mines and quarries are administered by the Safety and Health Division of the Ministry, which includes the Inspectorate of Mines. The Ministry is responsible for the general co-ordination of fuel research, and the Chief Scientist's Division itself conducts or arranges for scientific research on specific projects and on matters affecting safety and health in mines and quarries.

The General Register Office

The General Register Office, which is under the Minister of Health for purposes of parliamentary control, is responsible under the Registrar General for the administration of the system of civil registration in England and Wales, for the preparation of statistics and reports relating to population, fertility, births, marriages, diseases and deaths, and for making arrangements for the periodic census of the population.

The Ministry of Health

The Ministry of Health, created in 1919 to take over the powers and duties previously attaching to the Local Government Board (established in 1871) and the National Health Insurance Commission (formed in 1912), assumed in 1920 the responsibilities in connection with mental illness formerly attached to the Home Office.

Twice since 1944 there has been a transfer of some of the Ministry's main responsibilities to newly created Departments—in 1945 those in respect of national health insurance and contributory pensions to the Ministry of National Insurance (now the Ministry of Pensions and National Insurance), and in 1951 those in respect of housing, water and sewerage services, and the supervision of local government to the Ministry of Local Government and Planning (now the Ministry of Housing and Local Government).

The main function of the Ministry of Health is now the administration of the National Health Service in England and Wales under the National Health Service Acts. The Ministry is also responsible in England and Wales for general food hygiene, for supervising the work of local authorities under certain sections of the Public Health Acts, for welfare food services, and for providing for the care of the aged, infirm, blind, deaf and dumb and other handicapped persons under the National Assistance Act, 1946.

On the amalgamation of the Ministry of Pensions with the Ministry of National Insurance in 1953, the medical and surgical treatment of war pensioners—including the management of hospitals and the supply of artificial limbs, surgical appliances and invalid vehicles—hitherto the responsibility of the Ministry of Pensions, was transferred in England and Wales to the Ministry of Health (and in Scotland to the Department of Health for Scotland). The responsibility of the Ministry of Pensions for the medical treatment of war pensioners in the Channel Isles and the Isle of Man and of those residing in the Irish Republic was also transferred to the Ministry of Health on that date.

The Home Office

The Home Office was created in 1782. Its head is the Secretary of State for the Home Department (the Home Secretary), who is the principal Secretary of State and is entrusted with all the responsibilities of national administration which have not been especially assigned by law or convention to the remaining Secretaries of State or Ministers. The Home Secretary is also the channel of communication between the Sovereign and his or her subjects, and between the United Kingdom Government and the Governments of Northern Ireland, the Channel Islands and the Isle of Man. In October 1951 the Home Secretary was appointed Minister in charge of Welsh affairs; at the same time a second Under-Secretary of State for the Home Department was appointed for Welsh affairs.

The chief matters with which the Home Office deals are: the maintenance of law and order; the efficiency of the police service; the treatment of offenders, including juvenile offenders; the efficacy of the probation service; the organization of magistrates' courts; legislation on criminal justice; the efficiency of the fire service; the care of children by local authorities and voluntary organizations; the regulation of the employment of children and young persons; the control and naturalization of aliens; the law relating to parliamentary and local government elections; public safety and public well-being; and preparations for civil defence.

In carrying out its functions in these matters, the Home Office is responsible, *inter alia*, for receiving and submitting Addresses and Petitions to the Sovereign and for preparing Presentations to Parliament; for preparing patents of nobility for peers and formal proceedings for the bestowal of honours; for advising the Crown on the exercise of the Prerogative of Mercy; for the sanctioning of byelaws made by local authorities in so far as they relate to 'law and order' and 'good governance'; for granting licences to experiment with animals; for ordering the exhumation and removal of bodies; for the control of explosives, firearms and dangerous drugs; and for the administration of the State Management Scheme for controlling the liquor trade in the Carlisle district.

The Ministry of Housing and Local Government

The Ministry of Housing and Local Government was constituted in January 1951, under the title of Ministry of Local Government and Planning, to take over the housing and local government functions of the Ministry of Health and the planning functions of the Ministry of Town and Country Planning (1943–1951). It was renamed the Ministry of Housing and Local Government in November 1951. It is the Department generally responsible for local government, the loan-sanctioning authority for most purposes for which local authorities require to borrow money, and the main link between local authorities and the central Government.

The Ministry exercises powers in regard to housing, water, sewerage and other services administered by local authorities in England and Wales. In regard to these services, the position, broadly, is that the Minister is responsible to Parliament (*a*) for securing, so far as intervention by the central Government is necessary, the performance of duties laid upon local authorities by Parliament, whether this obligation is to be discharged by the aid of grants from national funds or not; (*b*) for encouraging the exercise of powers given to local authorities in regard to such services whether by grants paid out of national funds or otherwise; and (*c*) for communicating with local authorities in regard to difficulties and complaints concerning any local authority services which may be brought to the Minister's notice.

As the central Housing Authority under the Housing Act, 1936, the Minister has supervisory responsibilities regarding the administration of the statutes relating to housing and the national housing programme; and he keeps in close touch with the local authorities through his officers in ten regions covering England and an officer in Wales. Local authority proposals for dealing with areas of unfit houses (slum clearance) are also submitted to the Minister and he has important functions in relation to the problem of overcrowding.

The town and country planning work of the Ministry includes the framing and execution of the national policy with respect to the use and development of land for the purpose of achieving the best use of land in the public interest. The responsibilities of the Minister in this respect include confirmation of the acquisition and disposal of land by local authorities; and the payment of grants, for planning purposes, in respect of certain cases of acquisition, clearing and compensation. The Minister also has responsibilities in connection with the establishment and work of the Development Corporations of the New Towns, and with the National Parks Commission.

The Central Office of Information

The Central Office of Information was established in 1946 as the successor to the war-time Ministry of Information. It is a common service agency for the production of information and publicity material and the supply of general publicity services required by Government Departments. Both for the home and oversea ministerial Departments it produces and distributes books, pamphlets, magazines, films, exhibitions, photographs and other visual material. It conducts all official press and poster advertising except that of the National Savings Committee, carries out social surveys, and distributes Departmental news to the Press, the BBC and the television companies. For the oversea Departments, it supplies British information posts with a daily service of topical information, comment and official news and with a comprehensive reference service. Administratively, the Central Office is responsible to Treasury Ministers, while the Ministers whose Departments it serves are responsible for the policy expressed in its work.

The Board of Inland Revenue

The Board of Inland Revenue administers the laws relating to income tax and surtax, profits tax, stamp duty, death duties, and certain other direct taxes of lesser importance; and advises the Chancellor of the Exchequer on any matters connected with them. The Board is also responsible for the valuation of real property for various purposes such as compensation for compulsory purchase, local authority rates and death duties.

The Ministry of Labour and National Service

The office of Minister of Labour was created by the New Ministries and Secretaries Act, 1916, which provided for the transfer to the Ministry of Labour of certain duties of the Board of Trade. Under the Minister of National Service Order, 1939, the title of the Ministry was changed to the Ministry of Labour and National Service and the offices of Minister of Labour and of National Service are held by the same Minister. The principal functions of the Ministry of Labour and National Service are: (1) administration of the Employment and Training Act, 1948, and provision of facilities and services for the purposes of assisting persons to select, fit themselves for, obtain and retain employment suitable to their age and capacity, of assisting employers to obtain suitable employees, and generally for the purpose of promoting employment in accordance with the requirements of the community, including the operation of (*a*) a national system of Employment Exchanges, (*b*) Appointments Offices and the Technical and Scientific Register, (*c*) Nursing Appointments Offices, and (*d*) Government schemes for vocational training; (2) central administration through the Central Youth Employment Executive of a comprehensive Youth Employment Service which may be provided locally by either the Local Education Authority, under a scheme approved by the Minister, or the Ministry's local office; (3) collection and publication of information and statistics relating to manpower, employment and unemployment, wage rates, earnings, hours of labour, retail prices, industrial disputes, employers' and employees' organizations, and industrial accidents and diseases; (4) manpower policy and co-operation with other Government Departments on matters of general employment policy, including the distribution of industry and the maintenance of a high and stable level of employment; (5) registration, medical examination and calling-up of men under the National Service Acts and deferment and postponement of call-up; (6) resettlement in civil employment of men called up under the National Service Acts or released from service in the Regular Forces; (7) administration of the Disabled Persons (Employment) Act, 1944, to enable disabled persons to secure employment including provision, where necessary, of courses of industrial rehabilitation and vocational training; (8) employment of older men and women; (9) administration and enforcement of the Factories Acts, 1937 and 1948, and the Employment of Women and Young Persons Act, 1936, and dealing generally with questions concerning the safety, health and welfare of workpeople in factories and certain other premises; (10) administration of the Anthrax Prevention Act, 1919, and of the Government Wool Disinfecting Station at Liverpool; (11) questions affecting industrial relations, i.e. relations between employers and employed, in particular (*a*) assistance in the prevention or settlement of industrial disputes, including the administration of the Conciliation Act, 1896, the Industrial Courts Act, 1919, and the Industrial Disputes Order, 1951, (*b*) administration of the Wages Councils Act, 1945 to 1948, (*c*) administration of the Catering Wages Act, 1943, and (*d*) encouragement of good personnel management and of arrangements for joint consultation in industry; (12) employment of foreign workers in Great Britain; (13) labour policy in the international field including relations with the International Labour Organization, and oversea questions concerning labour and employment; (14) agency work for other Government Departments in connection with National Insurance, National Assistance, repayment of income tax to unemployed persons, and the issue of passports when obtained locally through Employment Exchanges.

The Law Officers' Department

The Law Officers of the Crown for England and Wales[1] (the Attorney-General and the Solicitor-General) are the legal advisers to the Crown and to all Government Departments and appear in Court on their behalf in cases of importance. In such cases the Law Officers are assisted by Junior Counsel to the Treasury. The appointments, which are made from among the more distinguished members of the English Bar, are generally, though not invariably, political and the office holders change with the Government.

The Attorney-General has a number of important functions in regard to the administration of justice and he has wide powers in connection with the enforcement of the criminal law. The Director of Public Prosecutions acts under his superintendence and is subject to his directions. The Attorney-General is the senior Law Officer but the Solicitor-General as his deputy acts for him in all cases where he is authorized or required to do so.

The Lord Chancellor's Department

The Chancellorship is a legislative, judicial and executive office always carrying Cabinet rank in peace time. The office is political in that it is held by an eminent ex-member of the Bench or of the Bar adhering to the political party in power.

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[1] For details of the Law Officers for Scotland, see p. 57.

In addition to his functions as Speaker of the House of Lords and Custodian of the Great Seal, the Lord Chancellor is in charge of more than 20 different offices and branches which are mainly concerned with legal practice and procedure. He controls the machinery of the courts of law both through his patronage and through administrative powers conferred by the Judicature Act, 1925, and other Acts; he advises the Crown on many appointments to the judiciary in England and Wales; and he is the Minister responsible for the Judge Advocate General's Department. This Department advises the War Office and the Air Ministry on all legal matters arising out of the administration of military law, and, where necessary, reviews the proceedings of army and air force courts martial.[1] The Lord Chancellor is also a member of the Judicial Committee of the Privy Council, exercises ecclesiastical patronage and is connected with a number of administrative tribunals, including the Pensions Appeal Tribunals and also the Lands Tribunal which determines questions relating to compensation for the compulsory acquisition of land and hears rating appeals from local valuation courts. The Land Registry, which is responsible for maintaining a State register of title to land,[2] and the Public Trustee Office, which may act as the executor or administrator of the estate of a deceased person or as a trustee under a will or settlement, are both administered under the Lord Chancellor.

The National Assistance Board

The National Assistance Board, responsible to Parliament through the Minister of Pensions and National Insurance, administers the State service of financial assistance to persons in need and unable to maintain themselves, and the non-contributory pension scheme under the Old Age Pensions Act, 1936. It has also responsibilities for assessing the needs of applicants for free legal aid.

The Paymaster-General's Department

The Paymaster-General's Department acts as chief paying agent for Government Departments other than the Revenue Departments. The majority of payments are made through banks (to whose accounts the necessary transfers are made at the Bank of England), but cash payments can be made and the payment of pensions, mainly comprising those to retired teachers, officers of the Civil Service and the National Health Service and members of the Armed Forces, and in certain cases to their widows, is an important feature of the work of the Department.

The Ministry of Pensions and National Insurance

In 1953 the Ministry of Pensions (established in 1917) and the Ministry of National Insurance (established in 1944) were amalgamated.

The Ministry of Pensions and National Insurance is responsible (*a*) for the social security services established by the Family Allowances Acts, 1945 and 1952, the National Insurance Acts, 1946 to 1955, and the National Insurance (Industrial Injuries) Acts, 1946 to 1954, and for reciprocal national insurance arrangements with other countries, (*b*) for the award and payment of war pensions and allowances for disablement and death due to service in the armed forces of the Crown, or due to war injuries sustained by merchant seamen, civil defence personnel and civilians in the second world war, and for the welfare of pensioners and their dependants and war orphans, and (*c*) for the treatment and rehabilitation of war pensioners in Northern Ireland. In addition to these responsibilities for war pensioners in the United Kingdom, the Ministry is also responsible for the administration of United Kingdom war pensions for pensioners resident in the Irish Republic, and for the administration of war pensions and the treatment of war disablement for the benefit of United Kingdom pensioners living in other parts of the world. The Ministry maintains an office at Ottawa to serve pensioners in North America. Various agency arrangements operate in other places.

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[1] The Judge Advocate of the Fleet is responsible for these matters in the Royal Navy.

[2] Title must be so registered and guaranteed by the State in certain compulsory areas, but elsewhere registration is voluntary.

The Post Office

The Post Office was set up in the seventeenth century to take over the responsibility for carrying letters, which was previously attached to the Crown. The Minister at its head is the Postmaster-General. Its work is mainly concerned with the operation of the inland postal, telegraph and telephone services and, in co-operation with other countries and interests, of the oversea postal and telecommunications services. It also undertakes certain banking functions, including the operation of the Post Office Savings Bank and the issue of money orders, and it acts as an agent for many other Government Departments in the collection of revenue (e.g., by the sale of broadcast receiving and other licences and by the sale of stamps for National Insurance contributions) and the payments of grants and allowances, such as National Insurance payments, retirement and certain other pensions and family allowances.

The Postmaster-General is the minister responsible to Parliament for broad questions of national policy concerning sound broadcasting and television services.

The Engineering Department of the Post Office carries out a considerable volume of scientific research and technical development relating to telephone, telegraph and radio systems.

The Department of Scientific and Industrial Research

The Department of Scientific and Industrial Research was set up as a Department of the Privy Council in 1916. It accounts for its own Vote in the Estimates and is responsible to Parliament through the Lord President of the Council.

The work of the Department covers research (except defence research) in all branches of natural science except medicine and atomic energy, and in all industries except agriculture, fishery and forestry. Its primary functions are to undertake research in the national interest for the benefit of the community and to meet the requirements of other Departments; to encourage research and the application of scientific knowledge in industry; and to encourage fundamental research at universities and elsewhere, and the maintenance of an adequate supply of trained research workers for laboratories of all kinds.

The Stationery Office

Her Majesty's Stationery Office was established in 1786. It is the Government's central organization for the supply of desk stationery, office equipment, office machinery, printed matter, published books and periodicals for British Government Departments at home and abroad. It is responsible for the publishing and sale of all Government publications. The Stationery Office also undertakes duplicating, addressing and distributing services for other Departments. The ministerial head of the Stationery Office is the Chancellor of the Exchequer, and questions pertaining to the Department asked in the House of Commons are normally answered by the Financial Secretary to the Treasury.

The Ministry of Supply

The present Ministry of Supply was formed in 1946 by the amalgamation of the war-time Ministries of Supply and of Aircraft Production.

The primary functions of the Ministry are to furnish supplies, which include complete atomic weapons, to the armed forces; to undertake research on, and the design and development of, equipment for these forces, principally for the Army and Royal Air Force, but including aircraft, vehicles, some guns and ammunition and other equipment for the Royal Navy. Other functions are to carry out the primary Government responsibility in the field of electronics and in the light metals industry, and to undertake research on and development and production of certain classes of equipment for civil use, e.g., civil aircraft and industrial gas turbines.

The Ministry controls the Royal Ordnance factories and those experimental, storage and other establishments which are owned by the Department; it is responsible for the administration of such matters as labour supply, labour management, welfare, housing and transport in connection with these organizations.

The Board of Trade

The Board of Trade originated as a Committee of the Privy Council but the Committee as such has not met for over a hundred years, the chairman, who holds the title of 'President of the Board of Trade', being left to conduct the business of the Department on the same basis as any other Cabinet Minister. The President is now assisted by a Minister of State who is specially concerned with oversea trade and by a Parliamentary Secretary. The Board of Trade has a general responsibility in relation to the United Kingdom's commerce, industry and oversea trade, and carries the central responsibility among Government Departments for the formulation of policy in certain economic fields.

The most important of the latter are: commercial relations and negotiations with other countries, including international commodity policy and the commercial aspect of relations with international bodies; general import and export policy; policy on the United Kingdom protective tariffs; consumer protection, including, for example, policy on price control, resale price maintenance, monopolies and restrictive practices and merchandise marks; matters affecting industrial productivity, and publicity for methods of increasing it; and distribution of industry, including implementation of the Distribution of Industry Acts.

The Board is also responsible for the following matters: (1) statistics of trade and industry, including the Censuses of Production and Distribution; (2) the administration of certain regulative legislation, mainly in relation to patents, registered designs, copyright and trade marks, companies and bankruptcy, insurance, weights and measures, and enemy property; and (3) policy towards and relations with certain non-Government organizations concerned with trade and industry, such as the British Standards Institution, the British Institute of Management, the British Travel and Holidays Association, the Council of Industrial Design and the National Research Development Corporation.

In addition, the Board is the 'production department' for all industries and raw materials which are not the concern of other Departments, and is responsible for the management and custody of strategic stockpiles of materials.

The Ministry of Transport and Civil Aviation

In 1953 the Ministry of Transport and the Ministry of Civil Aviation were amalgamated. This amalgamation was foreshadowed in November 1951, from which time the two offices of Minister of Transport and Minister of Civil Aviation were held by the same Minister. The Ministry of Transport and Civil Aviation has two joint Parliamentary Secretaries.

The Ministry of Transport, established in 1919 'for the purpose of improving the means of, and the facilities for, locomotion and transport', assumed also, in 1941, the responsibility for merchant shipping formerly exercised by the Mercantile Marine Department of the Board of Trade.

The Ministry of Civil Aviation was established in 1945 to organize, carry out and encourage measures for the development of civil aviation, for the promotion of air safety and efficiency, and for research on air navigation.

The powers and duties of the Ministry of Transport and Civil Aviation relate to the following aspects of inland transport and merchant shipping: railways; inland waterways; roads,[1] bridges and ferries, and the vehicles they carry; harbours, docks, piers and river conservancy; national and international shipping policy; ships, their masters, officers and men; safety of life at sea; navigation (including pilotage, lighthouses, and other aids to safety in navigation); wreck and salvage; and the Coastguard Service. The Ministry is the highway authority for trunk roads and is responsible for providing and operating troopships.

In civil aviation matters, the Minister of Transport and Civil Aviation may give general directions to the publicly owned airline corporations on matters affecting the national interest. He also approves associate arrangements between airline corporations and independent air transport companies for the operation of scheduled services.

General civil aviation responsibilities include: the regulation of civil flying; air safety; the provision, administration and equipment of State-controlled aerodromes and other ground services; the negotiation of international air transport agreements; the registration of aircraft; and the licensing of aircrew and aircraft maintenance personnel.

The War Office

The office of Secretary of State for War was established in 1854 as a preliminary to abolishing the office of Secretary of State at War, which had been in existence since the beginning of the century. In 1904 the Army Council was constituted on the model of the Board of Admiralty, with the Secretary of State as president and a membership of both military and civil personnel.

The War Office is responsible for the administrative control of the Army, including appointments, promotion, postings and payment. Its functions include the planning of operations and training; the collection and sifting of military information; the framing of policy on the composition, weapons and equipment of the Army; the determination of financial and labour policy connected with the Army; and the supervision of War Office civilian staffs both at home and abroad.

The Ministry of Works

The Ministry of Works, previously known as His Majesty's Office of Works, was established under its present title in 1943. Its main functions are: the provision of office accommodation for Government Departments (including public buildings overseas), and of many other types of accommodation when required by Civil and Service Departments; the design, purchase, supply and maintenance of furniture and equipment for Government Departments and certain other bodies, and the supply of fuel, household articles and stores; the administration of the Ancient

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[1] The Ministry's responsibilities for roads, bridges, piers and ferries in Scotland are to be transferred to the Secretary of State for Scotland in April 1956.

Chalk cliffs on England's south coast; the Seven Sisters, near Eastbourne, Sussex.

The coast of Co. Antrim,
Northern Ireland.

The Speaker's procession in the main lobby of the House of Commons.

A general election polling station. Each elector votes in a private booth, by marking his ballot paper with a cross. He then folds it and places it in the locked ballot box.

Monuments Acts and the maintenance of those ancient monuments and historic buildings which are in the Ministry's charge; the maintenance of Royal Palaces and certain official residences; the 'physical' arrangements (architectural and engineering services) for certain State ceremonial occasions; the management and maintenance of the Royal Parks and certain other open spaces.

The Ministry also has responsibilities for the building programme and for the efficiency and welfare of the building and civil engineering and building materials industries, including: oversight of the national building programme; maintenance of a list of all building and civil engineering firms and collection of statistical returns; oversight of the production of building materials and fitments; consultation with the industries at national and regional level; encouragement of apprenticeship and training in the building and electrical contracting industries; review of building research and development work to meet the industry's requirements, and to ensure that results of research are made available to the industry.

By a special arrangement, announced by the Prime Minister in November 1953, the Minister of Works has been made responsible for answering questions in the House of Commons concerning atomic energy, since the responsible Minister—the Lord President of the Council—is a member of the House of Lords.

SCOTLAND

The first Secretary for Scotland was appointed in 1885 in recognition of the fact that Scotland required a separate system of administration from that of England and Wales. In 1926, all the powers and duties attached to the office were transferred by the Secretaries of State Act to a principal Secretary of State.

The functions of the Secretary of State, who is assisted at ministerial level by a Minister of State, three Parliamentary Under-Secretaries and the Scottish Law Officers, are discharged by four main administrative Departments of equal status, each under a Secretary responsible to the Secretary of State for the discharge of the duties of the Department. The day-to-day administration of the Departments is conducted in Edinburgh, but each Department has representatives in London for liaison and Parliamentary duties. This London office is generally known as the Scottish Office, a term also used to describe the whole system of Scottish administration.[1]

The four main Scottish Departments are the Scottish Home Department, the Department of Health for Scotland, the Scottish Education Department, and the Department of Agriculture for Scotland.

The Scottish Home Department

The Scottish Home Department was set up in 1939 to take over the work that had been undertaken previously by the Secretary of State's Office, and by the Fishery Board for Scotland and the Prisons Department for Scotland.

In the field of law and order, the Department is concerned with the police, probation and remand home services, criminal justice, legal aid and the services needed by the courts; it is directly responsible for the administration of prisons and Borstal institutions.

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[1] A Royal Commission on Scottish Affairs, set up in 1952 to review 'the arrangements for exercising the functions of Her Majesty's Government in relation to Scotland', reported in 1954 that the existing organization of Scottish administration was working satisfactorily. Following the Commission's recommendations, the Government decided that responsibility in Scotland for roads, the appointment of justices of the peace, and animal health (apart from the control of epidemic diseases) should be transferred from other Ministers to the Secretary of State for Scotland.

The Department is the central Department in Scotland for the fire service and civil defence; for the children's service; and for legislation concerning shops, theatres, cinemas and licensed premises. Licensed premises in the State Management Districts[1] are directly maintained by the Department.

Other functions of the Department are: general duties in connection with the structure and finance of local authorities, including valuation and rating and the administration of the Exchequer equalization grants; and the oversight and protection of the Scottish inshore, deep-sea and freshwater fisheries. The Department is also closely concerned, in co-operation with the Board of Trade and other United Kingdom Departments, with Scottish economic development, including the provision of electric power and the rehabilitation of the Highlands generally.

The Department of Health for Scotland

The Department of Health for Scotland is responsible for the general supervision of the National Health Service in Scotland; for the central administration of the Housing (Scotland) Acts and for the supervision of the house-building programme and the distribution of grants to local authorities for housing purposes; and for the control, under the Town and Country Planning (Scotland) Acts, of the use of land and the establishment of new towns under the New Towns Act.

The Department is also responsible for supervising the administration of various environmental services, e.g., water supplies and sewerage; and welfare services, e.g., the care of the aged and handicapped persons; and for the medical and surgical treatment of war pensioners in Scotland (including hospital services and the supply and repair of artificial limbs, surgical appliances and invalid chairs).

The Scottish Education Department

The Scottish Education Department is responsible for supervising the administration of the Education (Scotland) Acts, for guiding the development of public education in Scotland in all its forms, for supervising the training of teachers, for issuing teachers' certificates and administering the Teachers' Superannuation Scheme, for controlling the distribution of Exchequer grants-in-aid of educational expenditure, for conducting the annual examination for the Scottish Leaving Certificate, and for exercising general supervision over Approved Schools and over the administration of the Royal Scottish Museum.

The Department of Agriculture for Scotland

The Department of Agriculture for Scotland is the successor of the Board of Agriculture which was established in 1912. The Department is responsible in Scotland for the management of agricultural property owned by the Secretary of State; for the administration and finance of various instructional, advisory and research services provided by agricultural colleges and research institutes; for the administration of subsidies and other services in connection with food production, the use of land and the economics of the agricultural industry; for the administration of agricultural improvement schemes and of labour, machinery and supply services; for the promotion of animal health; and for the protection of agricultural interests generally.

Minor Departments

In addition to the main Departments, there are a number of minor Scottish Departments, including the Department of the Registrar General for Scotland (the

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[1] Districts in which State management of the liquor trade is in operation.

General Registry Office), all of which work in varying degrees under the direction of the Secretary of State. There are also the Scottish branches of the United Kingdom Departments under the direction of Controllers, who are responsible for ensuring that the execution in Scotland of the policy and procedure of their Departments is in accordance with Scottish conditions and needs.

Legal Departments

The Law Officers for Scotland are the Lord Advocate and the Solicitor-General. The Lord Advocate is in administrative control of two Departments: *The Lord Advocate's Department,* which is responsible for drafting Scottish legislation, providing legal advice on Scottish questions for other Departments, and assisting the Scottish Law Officers in certain of their legal duties; and *The Crown Office,* which exercises the powers of the Lord Advocate in relation to criminal proceedings.

NORTHERN IRELAND

There are a number of separate Departments for Northern Ireland, which are controlled by the Northern Ireland Parliament. Most of these have functions in Northern Ireland analogous to those performed for England and Wales by the United Kingdom Departments of the same name—the Northern Ireland Ministries of Home Affairs, Education and Agriculture; the Northern Ireland Assistance Board; and the Exchequer and Audit Department for Northern Ireland. Other Northern Ireland Departments cover activities which in Great Britain are divided between several Departments. These Northern Ireland Departments include the Ministries of Finance, Commerce, Health and Local Government, and Labour and National Insurance.

The Ministry of Finance

In addition to acting as Treasury to the Government of Northern Ireland, the Ministry of Finance is responsible for administrative work in connection with the erection and maintenance of public works and buildings; for Government valuation and survey; for land registry, the registry of deeds, and certain duties in connection with land purchase; for the reception and preservation of public records; for the work of the Registrar-General; for the control of Government publications; for the control and administration of charitable donations and bequests; and for the control of borrowings.

Attached to the Department is the Office of the Parliamentary Counsel, in which Government Bills are prepared for introduction into Parliament.

The Ministry of Commerce

In addition to its commercial intelligence work, and its work in connection with industrial production and the development of new, and the expansion of existing, industries, the Department is responsible for the business of the Government in relation to electricity and gas undertakings; roads and bridges and inland public transport; railways; harbours and inland waterways; fisheries; the development of the tourist traffic; the regulation and inspection of mines and quarries; mineral development; scientific development; weights and measures; the registration of companies and trade unions; and the administration of the Assurance Companies Acts and the Industrial Assurance (Northern Ireland) Act, 1924. The Ministry also performs functions delegated by the Ministry of Fuel and Power (Whitehall) relating to the distribution of coal and other solid fuels.

The Ministry of Health and Local Government

In addition to its work in connection with the National Health Service, the Department is responsible for the central administration of local government services and for housing.

The Ministry of Labour and National Insurance

The Ministry is responsible for the administration of the Factories Acts and other legislation connected with industrial health and welfare; for the promotion of joint organizations for the settlement of industrial questions and of machinery of conciliation in industrial disputes; for the administration of local employment offices and the machinery for dealing with employment questions of all kinds; for the administration of the National Insurance Act and the National Insurance (Industrial Injuries) Act, and of the Family Allowances Act; and for carrying out certain statutory functions in connection with the National Assistance Scheme in conjunction with the National Assistance Board for Northern Ireland.

THE CIVIL SERVICE

A civil servant in Britain is a servant of the Crown (not being the holder of a political or judicial office), who is employed in a civil capacity and whose remuneration is found wholly and directly out of moneys voted by Parliament. The number of civil servants under this definition amounts to more than a million; for it includes some 425,000 Government industrial employees in such establishments as Royal Ordnance factories and Admiralty dockyards. The term 'Civil Service' is, however, generally used only to cover 'non-industrial' members of the staffs of the various Government Departments.[1] At the end of September 1955 the total number of non-industrial civil servants employed in all Departments, at home and overseas, was 636,098; nearly one-third of this total are women.

Although the civil servant is legally a servant of the Crown, in practice he serves the Minister in charge of the Department in which he works, by advising in the formulation of policy and by carrying out policy decisions once they have been taken. From time to time the Minister may change, but the civil servant remains to serve his successor. In Britain changes of government do not involve changes in departmental staff, and this continuity makes for administrative stability.

Development of the Modern Civil Service

The Civil Service in its present form is a product of the past one hundred years. Before then, Departments were free to choose their own staffs, qualifying standards were unknown, there was no central supervision, and political jobbery was rife. Measures of reform instigated during the nineteenth century (mainly as the result of a report on the Organisation of the Permanent Civil Service by Sir Stafford Northcote, Secretary of the Board of Trade, and Sir Charles Edward Trevelyan, an Assistant Secretary of the Treasury, which was published in 1854) included the substitution of open competition for the practice of obtaining Civil Service appointments by favour or purchase, and the establishment of an independent body, known as the Civil Service Commission, to organize recruitment to the service. The great expansion in State planning which has taken place during the last fifty years, and the consequent expansion in the numbers of civil servants and the scope of their duties, have led to further reorganization. During the last few decades, recruitment competitions have been adapted to a developing educational system; co-ordination between the various Departments has been improved; and the search for increased efficiency in the conduct of public business has been the task of many Government-appointed commissions and committees of inquiry. As a result, civil servants, though they remain employees of their Departments, are today members of an integrated service with common conditions of employment and common traditions and standards of conduct which belong not to individual Departments but to the Civil Service as a whole.

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[1] Working in the United Kingdom, and also overseas in the Foreign Service (see p. 46) and for other Government Departments such as the Commonwealth Relations Office (see p. 44).

Departmental Organization

The responsibility for the policy and activities of each Department lies with the Minister, who is answerable to Parliament for what the civil servants in the Department do or say.

The internal organization of Departments is a matter for the Department to decide and it varies according to the volume and nature of the work involved. There are, however, features common to most Departments, for example, the Minister of a major Department is likely to have at the head of his officials a Permanent Secretary (known as the Permanent Under-Secretary of State in those Departments where the Minister is a Secretary of State) who is also Accounting Officer and must appear periodically before the Public Accounts Committee; one or more Deputy Secretaries; and a varying number of Under-Secretaries and Assistant Secretaries. In addition, major Departments usually have a Principal Finance Officer and a Principal Establishments and Organization Officer. A number of Establishment Divisions have their own Organization and Methods (or 'O & M') Branch, the members of which act in an advisory capacity as 'efficiency experts'. Many Departments also have their own Legal Advisers or Solicitors, and their own Information Division.

The use, wholly or in part, of the standard classes and grades of civil servants, which are described below, is common to most Departments. Thus a common hierarchical pattern emerges, although there are many variations of it.

Control of the Service

The measure of uniformity in the Civil Service has largely resulted from the general control of the Service which is exercised by the Treasury. The Permanent Secretary to the Treasury is the official head of the Civil Service and the Principal Adviser of the Prime Minister on matters affecting the Civil Service as a whole, and in particular on appointments to senior posts in the Service (see p. 61). The Treasury is also responsible for the salaries and conditions of employment of civil servants; it controls total numbers of staff and the creation of higher posts, maintains a central Organization and Methods Division which serves all Departments which do not maintain an Organization and Methods branch of their own, deals with general questions relating to training after entry into the Civil Service, and takes the lead on questions concerning the number of Departments and the distribution of functions.

Classes and Grades

The engagement and position of all civil servants are covered by regulation, agreement and traditional practice, every civil servant being assured of a definite status depending upon the post which he is called upon to fill. There are four main classes of civil servants, each class containing a series of grades. The classes are:

1. The *Administrative Class*, which is responsible for advising Ministers on policy, for dealing with any difficulties which may arise in carrying out

existing policy, and for forecasting the probable effects of new measures and regulations. This relatively small class, which at end-September 1955 numbered about 3,430, is recruited largely from university graduates.

2. The *Executive Class* (numbering some 67,900 at end-September 1955), which is responsible for the day-to-day conduct of Government business, including the higher work of supply and accounts, within the framework of established policy. Members of this class must have reached a recognized educational standard; after entry they may train for specialist work such as that of an auditor, actuary or statistician.
3. The *Clerical Class* (the largest of the main classes, comprising about 185,600 officers), which undertakes all the usual clerical work involved in running departmental business, e.g., the preparation of accounts and the keeping of records, the handling of particular claims in accordance with known rules, and the summarizing and annotation of documents for the assistance of senior officers.
4. The *Typing Class* (about 27,400 members), which consists of shorthand typists, copy typists and learner typists.

Other classes are: the *Professional, Scientific and Technical Classes*, which consist of some 112,200 civil servants with the necessary qualifications (e.g., doctors, lawyers, engineers, information officers and research workers) for carrying out the wide range of specialized duties which are now discharged by the Government; the *Departmental Classes*, which are not found throughout the Service generally but are confined to one or two Departments, e.g., the Tax Inspectorate of the Board of Inland Revenue, the Factory Inspectorate of the Ministry of Labour and National Service, and the Waterguard of the Customs and Excise Department (in all some 2,750) and the *Manipulative Classes*, which include large numbers (about 236,700 at end-September 1955) of postal and telegraph officers, postmen, telephonists, messengers, paper keepers, office cleaners and similar workers in Government Departments, and their immediate supervisors.

The Foreign Service (see p. 46) which in 1955 numbered some 3,300 members exclusive of messengerial grades, is separately organized and has its own nomenclature. Branch A corresponds roughly to the Administrative Class of the Home Civil Service; Branch B to the Executive and Clerical Classes; and Branch C to the Typing Class. All members of these three branches are liable for service both at home in the Foreign Office and abroad, and may be employed on any type of Foreign Service work—diplomatic, consular, commercial and 'information'. Various specialists and advisers who are seconded from the Fighting Services and from home Government Departments (e.g., those concerned with financial, commercial or labour matters) are attached to many oversea posts. In addition, at many posts abroad a proportion of the staff is locally engaged on a 'temporary' basis, i.e. they do not normally qualify for pensions.

Recruitment of Staff

The recruitment of all permanent civil servants is in the hands of the Civil Service Commission,[1] whose members are appointed by the Crown on the advice of the Government. The normal method of entry is by open competition, conducted in accordance with regulations approved by the Treasury and consisting of written examinations or interviews, or both. The main points of entry into the four main classes of the Home Civil Service are planned to correspond to definite levels in the British educational system, and it is the Commission's duty to study the requirements of the Civil Service in the light of the education provided by the schools and universities.

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[1] The Civil Service Commission has been made independent of both parliamentary and ministerial control in the selection of entrants to the Civil Service.

In addition to holding examinations and conducting interviews, the Commission is responsible for issuing a Certificate of Qualification in respect of each successful candidate, for placing new entrants in Departments for which their qualifications are appropriate, and for watching the careers of those it has selected in order to ensure that current methods of recruitment are successful and up to date.

Temporary civil servants, who do not qualify for pensions, but are eligible for gratuities, are normally recruited by the Department concerned through the Appointments Service (see p. 257) of the Ministry of Labour and National Service. No qualifying examinations are required for entrance on a temporary basis to general service.

Training after Entry

Each of the larger Government Departments has a Training Officer and a number of instructors, who organize both general and technical courses where necessary. Types of courses vary from Department to Department, but nearly all have systematic instruction of recruits in all classes. There are also 'refresher' courses for more experienced staff covering technical subjects or broader subjects such as management and supervision.

Methods of training include the use of films and instructional books; discussion groups; and educational visits, which enable civil servants to study the appropriate workings of outside bodies. In addition, officers in the early years of their service may be transferred from branch to branch and, more rarely, from Department to Department, in order that they may gain as wide an experience as possible of civil service activities.

Civil Service training is co-ordinated by the Training and Education Division of the Treasury, which also undertakes the task of training special groups such as secretaries and the departmental instructors themselves, and provides central courses, some months after entry, for members of the Administrative Class.

Promotion

A period of probation (lasting from one to two years according to grade, with extensions in certain instances) is the rule for all new entrants to the permanent Civil Service. Promotions from grade to grade are made by Departments; those from class to class partly through centrally conducted competitions (open only to serving members of specified civil service classes), and partly by Departments themselves. All promotions to the Administrative Class from other classes require Treasury approval. Promotions to most of the highest positions in the Civil Service, i.e. Permanent Secretary, Deputy Secretary, Principal Establishments Officer and Principal Finance Officer, must be approved by the Prime Minister, who is advised in these matters by the Permanent Secretary to the Treasury.

Conditions of Service[1]

Machinery for negotiation on conditions of service affecting the Civil Service as a whole is provided by the National Whitley Council[2] which is composed jointly of official and staff representatives. Negotiating machinery for separate sections of the Service is provided through the various staff associations, which civil servants are encouraged to join (e.g., the Civil Service Clerical Association, the Union of Post Office Workers, the Society of Civil Servants, the Institution of Professional Civil Servants, and the Association of First Division Civil Servants), and through departmental Whitley Councils (of which there are about 75).

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[1] A review of the pay of the Civil Service, including the principles which should govern it, and of other conditions of service such as hours of work and annual leave, has been undertaken by a Royal Commission set up in July 1953, which reported in November 1955.

[2] See also pp. 268–9.

In general, the civil servant receives a salary which, except in the very highest posts, is intended to compare reasonably with that paid for similar work outside the Service, and he normally receives annual increments up to the maximum of the scale of the grade to which he belongs. In addition, although a civil servant holds office at the pleasure of the Crown and may therefore be dismissed at any time, in practice he enjoys a considerable measure of security of tenure. Thus every permanent civil servant may reasonably expect a full career in the public service, and a pension on retirement—though this, again, is not a legal right.

Civil servants are generally 'conditioned' to a given number of hours of attendance a week. Overtime is paid to members of most of the lower salary groups if they work longer than their 'conditioned' hours. The standard working week in the Service, at present, is generally 45½ hours. The highest administrative officials, who work the longest hours, receive no extra remuneration for extra work performed. Annual leave varies according to the grade up to a maximum, at present, of 36 days a year. Sick leave on full pay, less any National Insurance benefit received, may be granted to established civil servants for up to six months in any twelve months, and on reduced pay up to a maximum of one year's sick leave in any four years.

Political and Private Activities

Civil servants may participate in political activities subject to certain special rules. Many grades are completely free to engage in national and local political activities; others are free to engage in most political activities by permission and subject to certain conditions; while others again are not allowed to take part in national political activities, but are free to seek permission to engage in local political activities. Civil servants of every grade may, of course, exercise the right of all citizens to register their private political opinions on appropriate occasions, e.g., at a general election or at local authority elections. Officially, the position and functions of a civil servant remain the same whichever political party is in power; and it is his duty to serve the Government of the day irrespective of his own political opinion.

Every civil servant may engage in such private activities as he wishes, provided that such activities do not in any way conflict with his official duties, nor with the provisions of the Official Secrets Acts of 1911 and 1920 and the Prevention of Corruption Act of 1906. A civil servant must not, however, use his official position to further his private interests; and he is therefore subject to restrictions in matters of commerce and business from which the ordinary citizen is free, e.g., he may not hold private interests in public contracts; and he may not use official information in writing, broadcasting or lecturing without the express approval of his Department. Above all, a civil servant is expected to conform to the high standards of integrity which characterize the Service to which he belongs.

LOCAL GOVERNMENT

Local government has been defined as government by elected local bodies charged with administrative and executive duties in matters concerning the inhabitants of a particular district or place and vested with powers to make byelaws for their guidance.

Government on a local basis has been part of the administrative system of the United Kingdom for many centuries. It has existed in England continuously since Saxon times. In its present shape, however, it dates back only to the later nineteenth century, when the conception of local government by popularly elected councils received statutory recognition.

The first 40 years of the present century witnessed a sharp increase in, and expansion of, environmental and social services, and a corresponding increase in the responsibilities of local authorities upon whom the greater part of the management of these services devolved. Legislation passed in the post-war period has made some further changes; on the one hand the powers of local authorities relating to the provision of hospitals, gas and electricity supplies and (in England and Wales) valuation for rating purposes have been transferred to national boards or to Government Departments, while on the other, local authorities (mainly the councils of counties and county boroughs in England and Wales and of counties and large burghs in Scotland) have been charged with certain additional or new responsibilities in connection with the health services, care of children, town and country planning, care of the aged and a number of other welfare services.

Recent changes have not affected the structure of local government, nor its importance as part of the administrative system as a whole. In the United Kingdom, it remains as an essential link between the individual and the central Departments of State.

Relations between Central and Local Government

As the supreme authority in the United Kingdom, Parliament controls local authorities through Acts of Parliament which require elected local councils to implement policies prescribed and defined in those Acts. The scope of local government is limited by the same means; no council may go beyond the boundary fixed for its activities by an Act of Parliament.

Legislation is supported by departmental supervision; Parliament makes certain ministers responsible for securing the efficient functioning of local government services. Departmental supervision is exercised by means of inspections, inquiries, examinations of statistics, authorization of loans, the issue of advisory circulars and statutory Rules and Orders, the approval of byelaws, and the administration of Government grants. The Ministry of Housing and Local Government is the main link between local authorities and the central Government in England and Wales; in Scotland the Scottish Home Department is generally responsible for local government; and in Northern Ireland the Ministry of Health and Local Government.

Principal Types of Local Authority

For purposes of local government, England and Wales and Northern Ireland are divided into county boroughs and administrative counties. Administrative counties are further divided into three types of county district: municipal or non-county boroughs; urban districts; and rural districts, which are themselves subdivided into parishes (except in Northern Ireland). Each of these divisions is administered by a different kind of local council, as follows:

England and Wales[1]

county councils (61)
county borough councils (83)
non-county borough councils (318)
urban district councils (562)
rural district councils (475)[2]
parish councils (about 7,300) or
parish meetings (about 3,800).

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[1] Excluding the London area.

[2] Including the Isles of Scilly.

Northern Ireland

county councils (6)
county borough councils (2)
borough councils (9)
urban district councils (24)
town commissioners (3)
rural district councils (32).

There are, in addition, the local authorities for London, which are unlike those in the rest of the United Kingdom. They are:

the London County Council
the Corporation of the City of London
the metropolitan borough councils (28).

Scotland

The local authorities in Scotland are:

county councils (33, of which two pairs are combined for certain purposes)
town councils (197, consisting of: the authorities for counties of cities, 4; other large burghs, 20; and small burghs, 173)
district councils (199; two counties are not divided into districts).

Functions and Services

It is the primary duty of every local authority to provide and administer such environmental and social services as it may be required to provide and administer by an Act of Parliament. It may provide additional services under the permissive powers of a general Act or under powers granted to it by Private Bill legislation.

The responsibilities of local authorities depend upon the type of council. In England and Wales and Northern Ireland, for example, county borough councils are all-purpose authorities, while the county councils and county district councils, i.e. the councils of non-county boroughs and of urban and rural districts, each have particular functions allotted to them, which they exercise independently to a considerable extent, although there is a certain degree of delegation from county councils to county district councils especially in the fields of education and planning. In Scotland, the town councils of the counties of cities are all-purpose authorities; elsewhere the county councils exercise very many local government functions. In large burghs, they administer education and in some cases the police service, all other functions being exercised by the town councils. In small burghs, county councils undertake a number of important functions, but housing and some other services are administered by the town councils. The smallest authorities (the parish councils or parish meetings in England and Wales and the district councils in Scotland) have a few functions which they may exercise of right.

The services provided by the councils, which are described more fully in later chapters, may be considered under three heads:

1. *Environmental Services*, which are services designed to secure and improve the citizens' surroundings. The majority are public health and sanitary services administered in England and Wales either by county, county district or parish councils (in London by the metropolitan borough councils, in Northern Ireland by the county district councils and in Scotland by the county and town councils), e.g., the inspection and abatement of nuisances, drainage, sewerage, street cleansing, refuse collection and disposal, the supervision of water supplies, measures for ensuring food hygiene (including inspection of premises where food is prepared, sold or served, and the analysis of food samples), rodent control and the provision of baths and washhouses. There are also the services for street lighting, public safety on the highways, and the provision of amenities such as parks and recreation

grounds, which are generally administered by the same authorities and also by district councils in Scotland. The important work of town and country planning is done in England and Wales by the county and county borough councils, except where it is delegated to county district councils, and in Scotland by county councils and the town councils of large burghs. County borough councils, as all-purpose authorities, provide and administer their own environmental services.

2. *Protective Services*, which include the fire service, the civil defence service and the police. The fire service is administered throughout England and Wales by the county borough councils and the county councils, or by joint authorities (or joint committees) set up by those councils if they amalgamate; and in Scotland, by the county councils and the town councils of most of the large burghs or by joint boards. These authorities[1] and, in London, the metropolitan borough councils and the City Corporation, are also responsible for organizing the local divisions of the Civil Defence Corps. The police service is maintained by Standing Joint Committees in the counties of England and Wales, by Watch Committees in the county boroughs or by joint boards in the case of combined police authorities. In London the maintenance of the City of London force is a matter for the Common Council of the City while the police authority for the Metropolitan police force is the Home Secretary. The appointment of the Commissioner of Police for the City of London and of the Commissioner of Police of the Metropolis are subject to the approval of the Sovereign. The police authorities in Scotland are the county councils, the town councils of large burghs or joint committees for combined forces.

3. *Personal Services*, which are services designed to 'cultivate the best physical, mental, and moral potentialities of each individual'. The type of authority concerned depends on the nature of the services, which range from maternity and child welfare, education, care of children and housing to the provision of entertainments. Services under this heading also include certain health services, services for the aged and infirm, and the provision and upkeep of libraries, museums and art galleries.

There are also some trading services, e.g., passenger transport, water supply, and harbour, dock and pier services, although these are now less numerous than before and during the war.

Local Authority Elections

In Great Britain the normal term of office of a councillor elected to any form of local government is three years. In some cases the whole council retires every third year and another is elected immediately; in other cases elections are held annually, when one-third of the councillors retire. Procedure at local government elections is governed by local election rules.

Any person (including a member of the House of Lords) is entitled to vote at a local government election provided that he or she is a British subject of 21 years of age or over or a citizen of the Irish Republic, and is registered as a local government elector for the area for which the election is held. A person qualifies for registration as a local government elector if on the qualifying date for the register he or she is resident in the area or occupies as owner or tenant any rateable land or premises in the area of a yearly value of not less than £10.

Voting takes place at polling stations arranged by the council concerned, under the supervision of a presiding officer specially appointed for the purpose. The procedure governing voting methods is the same as that followed at parliamentary elections except that, in rural district or parish council elections, voting by post or by proxy is not allowed, except to Service voters (see p. 27). No elector may give more votes in all than the total number of councillors to be elected.

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[1] These authorities may delegate important civil defence functions to constituent district councils.

Candidates for election stand either as Independents or as representatives of one of the national or local political parties. Each candidate must be nominated by two electors, as proposer and seconder; and, in England and Wales, except in elections for metropolitan borough councils, rural district councils and parish councils, eight other electors for the area must assent to the nomination. In Scotland, county and district council candidates require proposers but no assenters, town council candidates a proposer and five assenters. A candidate for election as a councillor must be of British nationality and over 21 years of age and must either (*a*) be registered as a local government elector in the Register of Electors for the area for which he seeks election, or (*b*) have resided within that area during the whole of the twelve months preceding the election (or within 3 miles in the case of parish councils), or (*c*) in England and Wales, own freehold or leasehold land in the area. Candidates are also subject to a number of statutory disqualifications designed to ensure that unsuitable persons do not offer themselves for election.

In Northern Ireland councillors elected to any form of local government hold office for three years and elections are held every third year. Procedure at local government elections is governed by Electoral Regulations made by the Ministry of Home Affairs for Northern Ireland.

The Elections and Franchise Act (Northern Ireland), 1946, provides that to be a local government elector a person must be a British subject of full age who was either born in Northern Ireland or has resided in the United Kingdom for the whole of the seven years ending on the qualifying date for the register, and who has the qualifications of a resident occupier of a dwelling house or of a general occupier of non-residential premises; these qualifications are similar to those which apply in Great Britain, though differing in certain particulars.

Voting procedure and the qualifications of candidates are substantially the same in Northern Ireland as in Great Britain, but the town clerk or the clerk to the council is the returning officer for all elections to the authority; there is no postal voting and the only persons who may vote by proxy are Service voters.

In parliamentary elections, the contest is normally between several candidates for one seat. In local government elections there are usually a good many seats to be filled, and nearly all county boroughs, non-county boroughs and metropolitan boroughs in England and Wales and the larger burghs in Scotland are divided into wards. Except in metropolitan boroughs, the number of councillors for each ward must be three or a multiple of three. All other local authority areas, except the administrative counties, may be divided into wards or they may be left as single units, depending on their size. The administrative counties are split up in accordance with orders made by the Secretary of State for the Home Department or the Secretary of State for Scotland, as the case may be, into electoral divisions which return members to the county council and to the district council. The London County Council is organized in three-member divisions, which are the same as the parliamentary constituencies in its area.

Internal Organization of Local Authorities

Local authorities are free to a very considerable extent to make their own internal arrangements and to choose the means and methods by which they will discharge their responsibilities. The arrangements made by most councils are briefly as follows: questions of policy and principle are decided by the whole council, which appoints committees to carry out the detailed administration of its various services.

The more important of the committees of the larger authorities divide their work among sub-committees, which stand to the parent committee in more or less the same relation as do the main committees to the whole council. The execution of the policy decided upon by the council and the committees rests with salaried officers and employees, whose number may vary from about half a dozen in a small rural district to several thousand in the large counties and in the larger county boroughs.

Apart from one or two minor provisions regarding the representation of specialists on committees and the length of time certain members may hold office, committees of councils are remarkably free from legal restrictions; even those known as 'statutory' committees are constituted according to individual requirements and not according to any set pattern laid down. For purposes of classification, however, they may be divided into two kinds: ordinary committees and joint committees. Ordinary committees may be further divided into statutory committees, the appointment of which is compulsory under an Act of Parliament; standing committees, which are appointed in accordance with the standing orders of the council on a permanent basis according to the extent of the council's business; and special committees, which a council may set up for a limited period to deal with a particular problem that once solved is unlikely to recur.

Joint Committees or Joint Boards consist of representatives of more than one authority. They are usually established when local authorities co-operate for services which cannot be dealt with on purely local lines, e.g., water supply, or sewerage.

Committees of a local authority may be advisory or executive; their powers and duties are usually laid down in the appointing council's standing orders or, in the case of a county or large burgh in Scotland, in the council's administrative scheme. A council is free to delegate all its powers to committees except its powers in connection with raising loans, levying rates or issuing precepts, which are legally reserved to the council as a whole.

Officers and Employees

In December 1954 some 1,411,000 persons (including teachers) were employed in local government service.

Every council is empowered to appoint such staff as it deems necessary to carry out its work. Certain appointments are compulsory, e.g., the Clerk, the Treasurer, the Medical Officer of Health, the Surveyor and the Sanitary Inspector. Even the smallest parish councils usually employ a part-time clerk. Choice of personnel is normally left to a great extent to the individual council.

Officers are normally of three kinds: heads of departments, whose duties are mainly of an administrative and managerial kind; subordinate officers employed in a professional, clerical or technical capacity; and manual workers who are employed to do the actual physical work for which the council is responsible. As a rule, senior staff appointments are made at the instance of the committee or committees particularly concerned; while most junior appointments are made by heads of departments, who are also responsible for engaging the manual labour required. Appointments and engagements are always made in conformity with a set establishment, and committees are informed of any appointments which they have not made themselves.

Rates of pay and conditions of service for local authority staff are within the jurisdiction of the employing council (except where the proposed salary of an officer requires the approval of a Government Department, as in the case of the clerk of a county council in England and Wales). They are based on recommendations made by the Whitley Councils (see pp. 268–9), of which there are several, including the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services, the National Joint Industrial Council for Local Authorities' Non-Trading Services (Manual Workers), the National Joint Council for County Council Roadmen, and, in Scotland, the Joint Negotiating Committee for Chief Officials of Local Authorities (Scotland) and the Joint Industrial Councils for Local Authority Services. In England and Wales there are also two special joint committees, which have made recommendations with regard to the salaries and conditions of service of town clerks, county district council clerks and other local authority chief officers.

All local government officers are expected to maintain a high standard of conduct; as public servants they 'must not only be honest in fact, but must be beyond the reach of the suspicion of dishonesty'.

Local Government Finance

Current expenditure by local authorities in 1954 amounted to £990 million (including housing subsidies and debt interests) which represented about 6 per cent of the gross national product. Income derives from Government grants,[1] from local rates, from loans, from trading receipts, rents, fees and other miscellaneous sources.

Government grants are of five main types: assigned revenues, which are the proceeds of certain national taxes handed over to local authorities, e.g., the proceeds of dog, game and gun licences and of the licence fees for hawkers, pawnbrokers, money-lenders and refreshment houses; percentage grants, which are agreed proportions of local authority expenditure upon services approved by Government Departments, e.g., education, health, roads, fire, police and children's services; unit grants, which depend exactly on the service provided, e.g., housing subsidies; equalization grants, which are contributions to the general revenues of the poorer local authorities; and special grants, which are grants paid from time to time for some particular purpose.

Rates are a form of local taxation paid by the occupiers (and in Scotland also by the owners) of land and buildings in a local authority area as contributions to the cost of local services. They are levied by a poundage on the rateable value of property which in England and Wales is equivalent to the yearly rent at which the property might reasonably be expected to let if the tenant paid rates and taxes and also the cost of insurance and repairs. Valuation is undertaken by the Valuation Officers of the Board of Inland Revenue; appeals may be made to independent Valuation Panels and thereafter to the Lands Tribunal. In Scotland the primary basis of valuation is the annual rent payable. Valuation is carried out by assessors appointed by county councils and the town councils of large burghs, and appeals lie to a county or burgh Valuation Committee and thereafter to the Lands Valuation Appeal Court of the Court of Session.[2]

The responsibility for levying and collecting the rates in England and Wales lies with the councils of county boroughs and county districts; in London, with the City Corporation and the metropolitan borough councils. County councils finance themselves by issuing a precept on the county districts (in London the metropolitan borough councils and the City Corporation) for the sums of money required; while parishes are financed by rates levied by the appropriate rural district council on property within the parish as an addition to the general rates. Rates in Scotland are levied by the town councils in burghs and by county councils elsewhere; to cover their expenditure, district councils issue a requisition each year to the county council; a town council has to meet an annual requisition from the county council in respect of the burgh's share of the expenditure on functions exercised by the county council throughout the county, including the burgh. In Northern Ireland, county councils are responsible for making, levying and collecting the rates, except in such parts of the county as fall within the jurisdiction of the county borough, borough, or urban district councils.

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[1] Paid in Northern Ireland by the Government of Northern Ireland.

[2] In October 1955 the Government introduced legislation to amend the law of valuation and rating in Scotland in the light of the recommendations of the Scottish Valuation and Rating Committee, which sat under the chairmanship of Lord Sorn.

Loans may be raised by all types of local authority for items of capital expenditure which could not well be met out of current revenue, subject to the approval of the Government Department responsible for the service for which the capital is required. Such loans may be raised either on the open market or from the Public Works Loan Board, which was originally constituted under the Public Works Loans Act, 1875, to make certain local loans out of moneys provided by the Exchequer and which for a brief period (1945–52) was the only source from which local authorities could normally borrow. Freedom to borrow on the open market was restored to local authorities in January 1953 (see also p. 287).

Internal control of finance is exercised on behalf of the council concerned by a Finance Committee, whose function is to keep the financial policy of the council under constant review. External control is carried out by means of an annual audit, which in the case of all councils in England and Wales (except for certain general accounts in about two-thirds of the borough councils) is operated by district auditors appointed by the Ministry of Housing and Local Government. Borough councils must use the services of the district auditor for accounts which relate to education, national assistance, children, local health services, coast protection, motor tax, rate collection, police, fire, civil defence and town and country planning, but they may and sometimes do employ a professional firm of auditors to do other work. In Scotland, all accounts are audited by a professional auditor appointed by the Secretary of State for Scotland, and paid by the council.

THE LAW

The maintenance of public order in the United Kingdom is effected, generally speaking, by two agencies—the judiciary and the police. Both are concerned in different ways with the obedience of the citizen to the law.

Law is said to be based on the concepts of order and compulsion. In the legal sense, it has been defined as any rule which will be enforced by the courts; as it applies to a country, it is usually understood as the set of rules by which the citizens of that country will expect to regulate their conduct in relation to their fellow citizens and to the State.

There is no written code of law in the United Kingdom. The question whether a particular rule is recognized as part of law is determined by consideration of the authorities, which may be statutes, statements made by legal writers, or reports of decided cases. If none of these exist, the judge uses a process of analogy, that is to say, he bases his decision in a case on its similarity to a previous case in which judgment has already been given.

The sources of law in the United Kingdom are statute law, common law which is law recognized by the courts as binding on some other grounds than express enactment, and equity. Statute law includes Acts of Parliament and delegated or subordinate legislation made under powers conferred by Parliament (see pp. 32–33). The origins of common law are to be found in the customs of the realm.

The greater part of statute law applies uniformly in all four countries of the United Kingdom, although in many fields of legislation there are statutes applying to Scotland only. The Scottish common law is different from that prevailing in England and Wales and (as a rule) in Northern Ireland, since ancient differences were perpetuated by the Act for the Union of England and Scotland, 1707, under which Scotland retained her own system of law. Equity was introduced into English law to modify the older common law system during the Middle Ages. Its purpose was to temper justice with mercy, when conscience was opposed to the rigours of the law, and to enforce and provide more effectual remedies for existing legal rights. Equity was fused with common law in 1873; its principles still apply.

The two main branches of the law in the United Kingdom, as in most other countries, are civil law and criminal law. Civil law has been defined as 'relating to the maintenance of private claims and the redress of private wrongs, which may not involve moral guilt'.[1] Criminal law deals with offences against the State and their punishment on behalf of the community.

Criminal Justice

Under the English law, every individual has a right to his or her personal liberty; therefore, no one may lawfully be arrested except in pursuance of criminal justice and on certain other specified grounds[2]; and if anyone is arrested or detained otherwise than upon lawful grounds, the writ of *Habeas Corpus* may be invoked to set him free, and he may sue the person who detained him for assault or false imprisonment. The writ of *Habeas Corpus* may be granted by a Divisional Court of the Queen's Bench Division or by any judge of the High Court (see p. 73) against the person who detains the prisoner and this person must then appear before the court on the day named to show cause for the detention; if he can show no cause, the prisoner must be released forthwith.

Lawful arrest may be either by warrant (which must contain a statement of the specific offence with which the accused is charged) or, in certain clearly defined cases, without warrant. Any person arrested must be brought before a magistrates' court (see p. 74) with the least possible delay and publicly charged with the offence of which he is accused. It is a basic principle of the English legal system that every accused person must be presumed innocent until his guilt has been proved by the prosecution, and it has been laid down that in the conduct of a criminal case, the prosecution shall neither have, nor appear to have, any advantage over the defence. Therefore, no prisoner can be compelled to answer the questions of the police before trial; but if he is prepared to do so, he must be warned that anything that he says may be taken down and given in evidence at his trial.[3] Private interrogation before an examining magistrate prior to public trial likewise forms no part of English criminal proceedings.

Prisoners awaiting trial either before a magistrates' court or before a higher court may, in certain circumstances, be released on bail—that is to say, they may be temporarily discharged subject to their entering into a recognizance, with or without sureties, for a reasonable sum of money, to appear in court at the time appointed for the trial.

Any person accused of a crime may be assisted at his trial by a professional lawyer. If he cannot afford to pay for legal representation he may be granted legal aid (see p. 80); this is at the discretion of the court, except in the case of a person charged with murder, who must be granted legal aid if his means are insufficient. During his trial, the accused person or defendant has the right to hear and subsequently to cross-examine all the witnesses for the prosecution, to call witnesses on his own account, and to address the court. Once acquitted no accused person can ever again be charged with that particular offence in any court of law.

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[1] *Outlines of Central Government*, J. J. Clarke.

[2] These are: for civil debt (this is now permitted only where a person of proved capacity to pay refuses to do so); by order of a court of law or of either House of Parliament, upon the ground of contempt; detention of persons found to be insane or mentally defective; detention of children by their parents or guardians.

[3] The police can ask questions of a person not in their custody without warning him, but once the police officer has made up his mind to prefer a charge against the person, he must warn him in similar terms.

The Jury System

Generally speaking, all the more serious crimes, i.e. crimes known as indictable offences because a formal written accusation or indictment is required for their prosecution, must be tried in a superior court before a jury. As an exception, however, certain specified indictable offences may be dealt with instead at a magistrates' court if the defendant consents. Conversely a criminal case which would ordinarily be dealt with in a magistrates' court must usually be heard before a jury if the offence is punishable by more than three months' imprisonment and the defendant elects to be so tried.

A jury consists of twelve persons duly summoned in pursuance of a precept from the court. Most property owners and ratepayers (men and women alike) are liable to be summoned for jury service if they are British subjects and are between the ages of 21 and 60, unless they are disqualified[1]; members of certain professions are, however, exempt from service, and no person can be summoned to serve on any jury more than once in any one year unless all the jurors on the list have already been summoned to serve during such year.

In trials by jury it is, broadly speaking, the duty of the judge to determine all questions of law, including questions as to the admissibility of the evidence, and for the jury to decide all questions of fact. In criminal cases, therefore, the jury has to decide whether, on the evidence placed before them and the summing-up of that evidence by the judge, the defendant is guilty or innocent; if it finds the defendant guilty, sentence is passed by the judge. The judge never accompanies the jury when it retires to consider its verdict. The verdict of a jury must be unanimous; if its members are unable to reach agreement, the case must be retried before a new jury. Both the prosecution and the defence have the right to object to any member of the jury on the grounds of his lack of impartiality; it is an offence to assault, threaten, or attempt to influence a juryman corruptly; and no jury can be penalized for its verdict, though it be apparently contrary to the evidence or to the summing-up of the judge.

Procedure under Scottish law differs from the foregoing in a number of important respects; notably, the verdict may be by a bare majority of the jury and, in addition to 'guilty' or 'not guilty', may also be given as 'not proven'; this last verdict, which does not exist in English law, involves acquittal in the same way as 'not guilty'.

In England and Wales, all cases in civil courts involving a charge of fraud against a party or a claim in respect of libel, slander, malicious prosecution, false imprisonment, seduction, or breach of promise to marry, must be tried by jury. Other civil cases are heard before a judge alone unless either party to a dispute demands a jury and the required consent of the court to this procedure is obtained. In the trial of a civil action, the jury is responsible for deciding not only all questions of fact (as in the trial of criminal cases) but also the amount of damages to be awarded to the injured party.

The procedure in civil cases in Scottish courts again differs in some respects.

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[1] Persons convicted of any infamous crime are disqualified for jury service.

At certain inquests at coroners' courts (see p. 76) a jury is required to be present to return a verdict on how, when and where a deceased person died. The jury in this instance consists of not fewer than seven and not more than eleven jurors. A jury is also required at an inquest held by a coroner to decide whether objects of gold or silver found in the ground are 'treasure trove' (see p. 77).

Law of Evidence

The law of evidence (evidence being all the legal means, exclusive of mere argument, which tend to prove or disprove any matter of fact, the truth of which is submitted to judicial investigation) is, in general, the same in criminal and in civil trials; but, because of the peculiar nature of a criminal trial—the gravity of the issue, the extent to which the public interest is involved and the penalty to which the prisoner may be subjected—some of the rules, as they relate to the proof of the case against the prisoner, are applied with greater rigour and severity in the course of criminal than in the course of civil proceedings. Thus in certain cases, although the uncorroborated evidence of one witness is, as a matter of law, sufficient, a conviction upon such evidence is, in practice, never allowed, unless the judge has warned the jury of the danger of convicting without corroboration.[1] In addition, evidence of admissions of guilt by an accused person are accepted in a criminal trial only with reluctance and subject to certain strict conditions designed to ensure that the prisoner fully understood that his confession might be used in evidence, and that it was a voluntary confession not obtained from the prisoner either by fear of prejudice or hope of advantage. Nor may the previous history of the prisoner be used against him unless he has expressly set up his own virtuous character as an argument for his innocence, or, where he gives evidence himself, if he has attacked the character of a witness or of the prosecutor, when evidence of previous convictions may be given, provided that they are neither irrelevant nor remote. And finally, by the law of England, a witness must not, as a general rule, repeat in court statements made by a third party; first, because to admit such evidence would be to accept the statement of a person not on oath, and secondly, because that person cannot be cross-examined.

THE COURTS

The courts that apply the law in the United Kingdom are broadly speaking divided into civil and criminal courts, although, since the distinction is a comparatively modern one, no hard and fast line can be drawn. Quite a number of civil cases are, in fact, heard in criminal courts; while occasionally a criminal case may be heard in what is primarily a civil court.

Civil Courts in England and Wales

The more important of the civil courts in England and Wales are:

The County Courts

The County Courts are so arranged that there is no part of the country more than a reasonable distance from one of them. This kind of court may be regarded as a 'popular tribunal'; something over a million cases are entered in it every year, although comparatively few ever reach the stage of trial, many being settled out of court. County Courts are presided over by a paid judge, sitting alone. Eighty County Court judges may be appointed.

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[1] In Scotland, apart from a few statutory exceptions, no person can be convicted unless there is evidence of at least two witnesses implicating him in the commission of the crime with which he is charged.

The general jurisdiction of the County Court covers all common law actions, except cases (such as libel) where the personal reputation of the defendant is involved, provided that the amount claimed does not exceed £400. Actions which may involve awards in excess of this sum may be transferred to the High Court by order of the presiding judge on application by the plaintiff. Cases which fall under the specific jurisdiction of the County Courts, e.g., those connected with agricultural holdings, rent restrictions, hire purchase agreements and other matters governed by statute or ministerial order, are tried irrespective of the amount involved.

In addition to the ordinary County Courts, there are still a few local courts, with somewhat similar jurisdiction. Most of these are survivals from the medieval borough courts, and some of them have little or no work to do at the present time. Two or three, such as the Liverpool Court of Passage, the Salford Hundred Court and the Bristol Tolzey Court, are still comparatively well used.

The Mayor's and City of London Court

This Court, which is the County Court for the City of London, is the amalgamation of two courts, the Mayor's Court, with a jurisdiction unlimited as to amount, and the City of London Court, a court for small cases. It is usually presided over by a judge appointed by the City of London.

The High Court of Justice

The High Court of Justice forms part of the Supreme Court of Judicature. The Supreme Court of Judicature largely took its present form in 1873. It is composed of the High Court and the Court of Appeal.

The High Court sits in three divisions: the Queen's Bench Division, the Chancery Division, and the Probate, Divorce and Admiralty Division. These divisions derive from the old courts of the same names which existed before 1873, and cases are distributed between them as tradition and convenience dictate.

The Queen's Bench Division is staffed by the Lord Chief Justice and 25 puisne judges, i.e. judges without special office of their own. These judges are mainly concerned with ordinary civil actions—debt cases, actions for damages, revenue cases, insurance cases, commercial cases, etc.; but they also hear criminal cases at Assizes (see p. 75).

The Chancery Division is officially headed by the Lord Chancellor; but most of the work is done by seven puisne judges who remain in London all the time. The jurisdiction of the Chancery Division derives from the equity system (see p. 70), and its work covers actions for the administration of the estates of deceased persons, partnership actions, actions connected with trusts and mortgages, some tax cases, the care of infants' estates, and company and bankruptcy matters.

The Probate, Divorce and Admiralty Division deals, as its name implies, with the proof of wills, with Admiralty and shipping cases, and with divorce cases, many of which are also heard (at present) before Queen's Bench and county court judges.

Appellate Courts

There are two Appellate Courts in civil law actions—the Court of Appeal, which is part of the Supreme Court of Judicature (see above), and the House of Lords.

There are several *ex-officio* members of the Court of Appeal, but its effective head is a judge called the Master of the Rolls, who is assisted by eight Lord Justices of Appeal. Appeals lie to the Court of Appeal from the County Courts, the Mayor's and City of London Court and the civil side of the High Court. The Court of Appeal generally sits in two or three divisions, with three judges to a division.

From the Court of Appeal, a further appeal is possible to the House of Lords, with the leave of the House of Lords or of the Court of Appeal. Such appeals are usually heard by five Lords of Appeal in Ordinary, who are paid professional judges with peerages for life. In addition, the Lord Chancellor and any peers who have held 'high judicial office' are entitled to sit. The House of Lords is the supreme court of appeal in civil cases in the whole of the United Kingdom.

Civil Courts in Scotland

The Sheriff Court

The Sheriff Court in its civil capacity corresponds roughly to the County Court in England and Wales, but it has a wider jurisdiction unlimited by the value of the case. It also has power to try (summarily or by indictment) all but the most serious crimes and offences. The work of the court is normally done by a Sheriff-Substitute, against whose judgment an appeal may be made to the Sheriff[1] or directly to the Court of Session.

Minor civil matters (actions not exceeding £5 in value) may be tried by justices of the peace.

The Court of Session

The Court of Session is the supreme civil court in Scotland. It was established in 1532 and consists at present of 15 judges. The Court is divided into two parts—the Inner House, which is mainly an appeal court, and the Outer House, a court of first instance, where, *inter alia*, all actions for divorce are taken. The Inner House is divided into two Divisions of equal status, each consisting of four judges; the First Division being presided over by the Lord President, and the Second Division by the Lord Justice Clerk. From the Inner House, an appeal may lie to the House of Lords.

The Scottish Land Court

This is a special court in Scotland for dealing with certain agricultural matters. The Court is presided over by a legal chairman, who has the rank and dignity of a Judge of the Court of Session.

Criminal Courts in England and Wales

The criminal courts in England and Wales include:

Petty Sessional or Magistrates' Courts

Magistrates' courts are courts of summary jurisdiction where persons accused of all kinds of technical offences and a large number of the less serious indictable offences may be tried without a jury (see p. 71). These courts are also used for committal proceedings, i.e. the public conduct, by magistrates, of preliminary inquiries into indictable offences to determine whether or not an accused person should be committed for trial. In 1954, over 97 per cent of all persons convicted were convicted at magistrates' courts; and in cases where the charge was withdrawn or the accused was acquitted, the proportion of summary proceedings to proceedings at superior courts was even higher.

The majority of magistrates' courts are presided over by two or more unpaid 'lay' magistrates or justices of the peace, who are appointed by the Crown, in each county, and for each borough which has its own commission of the peace, on the recommendation of the Lord Chancellor, who is advised as to a county by the Lord Lieutenant[1] with the assistance of an advisory committee, and as to boroughs by separate advisory committees. There are also a few persons who are authorized by statute to act as justices, by virtue of holding some other public office, e.g., mayors of county and non-county boroughs and chairmen of county councils.

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[1] Scotland is divided into 12 Sheriffdoms, each provided with a Sheriff and a varying number of Sheriffs-Substitute.

In central London, the courts are presided over by paid metropolitan magistrates; some of the larger towns also have stipendiary magistrates.

Juvenile Courts in England and Wales are specially constituted courts of summary jurisdiction which deal with children and young persons (i.e. persons under 17 years of age) charged with any offence except homicide. They also hear applications in respect of children and young persons in need of care or protection or beyond control, truancy cases and the majority of applications for adoption.

Outside the Metropolitan (London) magistrates' courts area the justices for each petty sessional division elect from their numbers a panel of justices specially qualified to deal with juvenile cases. Within the Metropolitan area the panel is appointed by the Home Secretary.

A juvenile court consists of not more than three justices drawn from the panel and must, except in special circumstances, include a man and a woman. A juvenile court must sit either in a different room or building from that in which other courts are sitting or on a different day. Only persons within certain specified categories are admitted and only limited publicity is allowed.

Domestic proceedings are also tried by not more than three justices, of whom one should be a man and one a woman. The hearing of domestic proceedings is separated from other business and, as in juvenile courts, the public is excluded.

Courts of Quarter Session

There are two different kinds of Quarter Sessions—county sessions and borough sessions; both are normally held four times a year.

County Quarter Sessions consist of the magistrates of the county assembled together under a legally qualified chairman. In those boroughs, which hold separate Quarter Sessions, the courts are presided over by a Recorder, who is a salaried barrister, as sole judge. Trial by jury applies at both borough and county sessions.

The jurisdiction of Quarter Sessions covers the less serious indictable offences; the courts are debarred, for example, from trying any crime that carries the death sentence or (subject to certain exceptions) imprisonment for life.

Assizes

The Courts of Assize are branches of the High Court of Justice. They are held in the county towns and in certain big cities three times a year, a Queen's Bench judge or a Commissioner of Assize (who may be a barrister commissioned to act as a judge) presiding. The Assize judges work on circuits covering England and Wales, and travel from one county town to another in the course of their duties. They can try any indictable offence committed in the county.

At the winter and summer Assizes, civil business as well as criminal may be taken, but except in a few large towns the autumn Assize is confined to criminal cases.

The Central Criminal Court

The Central Criminal Court at the Old Bailey acts as the Court of Assize for the criminal business of London, Middlesex and parts of the Home Counties. The judges include: a judge chosen from the Queen's Bench Division in rotation for each monthly session of the Court; the Recorder of London; the Common Serjeant; and two additional judges of the Mayor's and City of London Court.

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[1] The office of Lord Lieutenant in the county was first created in the sixteenth century. Its holder was chief among the county justices and commander of the county militia.

Criminal Appeals

Appeals may be made direct from the magistrates' court to the High Court on a point of law; but the more usual kind of appeal is the appeal of a convicted person against his conviction or his sentence. Appeals of this kind from a magistrates' court are heard in the counties by the Appeal Committee of Quarter Sessions, consisting of between three and twelve magistrates, and in the boroughs by the Recorder; in neither case is a jury required.

Appeals against convictions or sentences by Quarter Sessions or Assizes go to the *Court of Criminal Appeal*. Appeals may be made on any point of law, and also, by leave, on a point of fact.

The Court of Criminal Appeal consists of the Lord Chief Justice and a number of Queen's Bench judges; three in session is the usual number.

A further appeal from the Court of Criminal Appeal to the House of Lords on a point of law can be made if the Attorney-General grants a certificate affirming that the appeal is of 'exceptional public importance and that it is desirable in the public interest that a further appeal should be brought'. Appeals of this kind are very rare.

Criminal Courts in Scotland

The bulk of the criminal prosecutions in Scotland are dealt with in the Sheriff Court (see p. 74), and only minor offences are tried in Police Courts in burghs and in Justice of the Peace Courts in counties. Cases involving serious crime are taken in the *High Court of Justiciary*, which is the supreme criminal court of first instance. It also functions as an appeal court from inferior criminal courts. It consists of the Lord Justice General (who is also the Lord President of the Court of Session), the Lord Justice Clerk and thirteen Lords Commissioners of Justiciary who are also judges of the Court of Session. The seat of the court is in Edinburgh, but the judges go on circuit to preside at trials in other towns. Appeals to the High Court are heard by three or more judges; there is no further appeal to the House of Lords.

Courts in Northern Ireland

Both civil and criminal courts in Northern Ireland are similar to those in England and Wales with some minor modifications to suit a smaller community. The main difference is that all petty sessional cases are dealt with by resident magistrates who correspond to the metropolitan or stipendiary magistrates of England and Wales. The inferior courts, that is to say the courts where the less serious cases are tried, are administered by the Parliament of Northern Ireland; the administration of the superior courts has been reserved to the Parliament of the United Kingdom.

The Coroner's Court

Where a person appears to have died a violent or unnatural death or a sudden death of which the cause is unknown, or in certain other circumstances, the death must be reported to a coroner[1] within whose jurisdiction the body is lying. When a death is reported to a coroner, he inquires how, when, and where the deceased died. A coroner may hold an inquest in court for this purpose and he must hold an inquest if he has reasonable cause to believe that the deceased has died a violent or unnatural death or has died in prison or in circumstances for which an Act of Parliament provides that an inquest must be held. A jury must be summoned if there is reason to suspect that the deceased came by his death by murder, manslaughter, or infanticide, or from an accident arising out of the use of a vehicle in a street or public highway, or in certain other special circumstances. If the jury returns a verdict of murder, manslaughter or infanticide by a particular person, the coroner commits that person for trial at Assizes. If the death is merely a sudden death of which the cause is unknown, the coroner need not hold an inquest but may order a post-mortem examination to ascertain the cause of death.

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[1] A coroner may be a barrister, a solicitor, or a medical practitioner of not less than five years' standing. Coroners are appointed by county and county borough councils.

Any person finding objects of gold or silver hidden in the soil or in buildings, the original owner of which cannot be traced, must report the find to a coroner. The coroner then holds an inquest with a jury to inquire whether the objects are 'treasure trove' and who was the finder thereof. If it is decided that the objects are treasure trove, then, though the law is that treasure trove vests in the Crown, the declared finder will either receive them back or be paid their full market value.

In Scotland, the office of Coroner does not exist. The Procurator Fiscal inquires privately into all sudden and suspicious deaths in his district and may report the results of his inquiries to the Crown Agent in order that Crown Counsel may consider what proceedings, if any, are required.

Ecclesiastical Courts

The established Church of England has its own ecclesiastical courts, which constitute a graduated hierarchy. They include the Court of the Archdeacon, the Consistory Court of the Bishop of each diocese and the provincial courts of the Archbishops of Canterbury and of York.

The ecclesiastical courts, which are still courts in the full sense of the word, have jurisdiction only in matters of purely ecclesiastical concern, such as questions of doctrine and ritual, ordination, consecration, and the celebration of divine service.

Special Tribunals

A number of special tribunals[1] exist in the United Kingdom for the exercise of what is known as administrative justice, i.e. for the settlement of disputes or the determination of rights in cases where the public interest is the central issue.

Such tribunals, though too various to permit of formal classification, include professional tribunals, e.g., the General Medical Council, and the Disciplinary Committee of the Law Society, which regulates the professional practice, conduct and discipline of solicitors; ministerial tribunals, e.g., the Pensions Appeal Tribunals, the Lands Tribunal, the Rent Tribunals, and the Local Appeal Tribunals for Insurance Benefits; and the disciplinary committees of marketing boards.

Appeals on a point of law in most cases lie from such tribunals either to a single judge of the High Court or to permanent commissioners appointed under an Act of Parliament or to the appropriate minister.

Military Courts

The jurisdiction of military courts or courts martial is exclusively over persons subject to military law, and appeals lie to the Courts-Martial Appeal Court, set up by the Courts-Martial (Appeals) Act, 1951. The powers of courts martial are limited to those conferred on them by statute, and if these powers are exceeded, the person injured has his remedy in the High Court.

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[1] In November 1955 a committee was appointed by the Government to inquire into the practice and procedure of administrative tribunals.

THE JUDICIARY

The judiciary of the United Kingdom is independent. That is to say, it is free to administer the law under the protection of the law without fear or favour. All judges, from those of the House of Lords and the Supreme Courts to the 'lay' magistrates or justices of the peace, must not only be, but must appear to be, completely impartial, for it is of fundamental importance that 'justice should not only be done, but should manifestly and undoubtedly be seen to be done'.

The courts of the United Kingdom are the Queen's Courts in that 'all jurisdiction of the courts is either indirectly or immediately derived from the Crown'[1]; but since the end of the seventeenth century it has been established that the executive cannot disturb or delay the course of common justice, attempt to force the judges to act otherwise than impartially, or use the prerogative powers of the Crown to create courts to administer any system of law other than common law.

The independence of the judiciary *vis-à-vis* the legislature is likewise strictly observed. Thus, although the Act of Settlement, 1701, laid down that the judges of the superior courts should be appointed by the Crown to hold office during good behaviour subject to a power of removal by the Sovereign on an address by both Houses of Parliament, it may be stated with confidence that no such address would ever be moved to interfere with judicial independence. Similarly, although no court in the United Kingdom would ever question the validity of an Act of Parliament which had been duly passed by both Houses of Parliament and duly promulgated and published by the proper authority, it might, through its interpretation of the statute, come to a decision contrary to the policy of the Government which introduced the Act. In such a case, it would be open to the Government to persuade Parliament to clarify or amend the statute, or even to pass a new Act to reverse the decision of the court. It would not be open to it to penalize the judge or to try to influence the court in any other way.

Administration of the Judicial System

There is no Minister of Justice in the United Kingdom. The central responsibility for the administration of the judicial system in England and Wales lies partly with the Lord Chancellor and partly with the Home Secretary. The Prime Minister is also concerned in that he is responsible for recommending to the Crown the appointment of the Lord Justices of Appeal and that of the Lords of Appeal in Ordinary (see pp. 73–74).

Apart from the appointment of the Lord Justices of Appeal, Crown appointments to the High Court bench are made on the recommendation of the Lord Chancellor, who is also responsible for recommending to the Crown the appointment or removal of justices of the peace, Recorders of boroughs and metropolitan and stipendiary magistrates. County Court judges are appointed by the Lord Chancellor (except in Lancashire, where they are nominated by the Chancellor of the Duchy of Lancaster).[2] The administrative business of the Supreme Court of Judicature and the appointment of court officials is partly in the hands of the Lord Chancellor and partly in the hands of the appropriate judges. The Lord Chancellor is a member of the Rule Committee which makes the rules of the Supreme Court;

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[1] *Blackstone's Commentaries.*

[2] Under clause 21 of the Administration of Justice Bill, which received its second reading in the House of Lords in November 1955, provision is made for the appointment of county court judges by the Crown, on the recommendation of the Lord Chancellor or the Chancellor of the Duchy of Lancaster.

he also appoints the County Court Rule Committee and has power to alter or to disallow the rules made by it. In addition, responsibility for initiating proposals for judicial reform, save in the field of criminal law, lies with the Lord Chancellor, who is advised in this matter by the Law Reform Committee and the Private International Law Committee, both established in 1952.

The Home Secretary is responsible for approving appointments of clerks to justices throughout England and Wales, and for the general administration of magistrates' courts, except in relation to their judicial functions in which they can be controlled only by the Queen's Bench Division of the High Court. The local responsibility for the administration of magistrates' courts lies with the magistrates' courts committees, of which there is one for each county and county borough.

In Scotland, the Prime Minister makes recommendations for the appointment of the Lord President and Lord Justice General and also of the Lord Justice Clerk (see p. 76). Power of submission for appointment of all other judges lies with the Secretary of State for Scotland on the nomination of the Lord Advocate. The High Court of Justiciary and the Court of Session are administered by the Clerk of the Justiciary and his staff and the Principal Clerk of Session and his staff respectively. Powers of appointment and removal of justices of the peace, formerly held by the Lord Chancellor, were transferred in 1955 to the Secretary of State for Scotland.

THE LEGAL PROFESSION

The legal profession of England and Wales is strictly divided into two classes of lawyers—barristers and solicitors. The distinction, which is due mainly to historical causes, is found also in Northern Ireland, Scotland and certain parts of the Commonwealth.

No hard and fast line can be drawn between the work of the solicitor and the work of the barrister, since there are many barristers who do little advocacy, and there are solicitors who do little else, and who have made considerable reputations for themselves in the courts in which they are permitted to appear. In general, however, it may be said that solicitors are professional men who undertake legal business for lay clients; while barristers advise on legal problems submitted through solicitors, and conduct legal proceedings in the higher courts.

A barrister is required to have reached an accepted educational standard, to have passed the legal examinations conducted by the Council of Legal Education and to have become a member of one of the four Inns of Court—Gray's Inn, Lincoln's Inn, the Middle Temple and the Inner Temple. A barrister with a substantial junior practice may apply to the Lord Chancellor for a patent appointing him Queen's Counsel—a proceeding that is known as 'taking silk'. The highest appointments in the legal profession, including those of Attorney-General, Solicitor-General, and other Law Officers of the Crown, are usually open only to barristers who have become Queen's Counsel. The professional conduct of a barrister is subject to the scrutiny of the General Council of the Bar; but disciplinary powers are vested exclusively in the Benchers of the Inns of Court.

The prospective solicitor must be considered suitable by the appropriate Committee of the Law Society and he must enter into 'Articles of Clerkship' with a practising solicitor of not less than five years' standing before he can begin his professional career. The term of articles lasts for three or five years, depending upon the educational qualifications of the student. An articled clerk must pass the necessary examinations held by the Law Society and, unless he has been a barrister or is a law graduate of a university, he is generally required to attend a course of studies at a recognized law school. Once a solicitor is qualified, he becomes an officer of the Supreme Court of Judicature. He may also become a member of the Law Society.

In Scotland, the conditions for admission as, and the standing of, advocates and solicitors are much the same as those applying in the case of barristers and solicitors in England and Wales.

LEGAL AID

Schemes for free legal assistance to persons of slender means and resources have existed in some courts and to a limited extent for centuries in England and Wales and in Scotland. The schemes were revised in 1949 when the Legal Aid and Advice Act and the Legal Aid and Solicitors (Scotland) Act received Royal Assent. These Acts were introduced to improve and extend the existing arrangements in civil proceedings so that no one would be financially unable to prosecute a just and reasonable claim or to defend a legal right, and to make the facilities already available in criminal proceedings more easily accessible to those who need them. The Acts also provided that solicitors and barristers acting for persons receiving legal aid should no longer be required to act gratuitously in civil cases, but should be remunerated for their services from public funds.

Legal Aid in Civil Cases

Legal aid in civil cases is now available to persons whose income, computed in accordance with rules applied by the National Assistance Board, does not exceed £420 a year, and whose capital, as so computed, does not exceed £500. Where an assisted person can afford to make a contribution to the costs of his case, he is required, as a condition of receiving legal aid, to pay an amount which is settled with due regard to his financial resources.

In England and Wales, legal aid in civil cases has been limited to proceedings started in the High Court or in the Court of Appeal, although eventually the scheme will cover representation in courts of all types, from magistrates' courts up to the House of Lords.[1] The scheme is operated through the Law Society under the general guidance of the Lord Chancellor. The cost is met from a Legal Aid Fund, drawn from three sources: contributions from assisted persons; costs recovered from opposite parties in litigation; and a grant from the Exchequer.

For the purposes of the scheme, England and Wales are divided into twelve areas. In each area a committee of solicitors and barristers, known as an area committee, is responsible for the scheme's initial organization and subsequent administration. These committees are responsible for setting up legal aid centres to which anyone seeking legal aid may apply. Committees hear the facts, and if they consider that there is a *prima facie* case they give it their support. The person who wishes to bring the action is then allowed to select from a panel a solicitor and, if necessary, a barrister, to conduct his case. Certain types of action, including breach of promise to marry, and libel and slander, are excluded from the scheme.

In Scotland the Legal Aid Scheme is administered by the Law Society of Scotland through a Central Supervisory Committee, a Supreme Court Committee and twenty-one local committees. Legal aid is at present available for civil proceedings in the Court of Session and the Sheriff Courts. An applicant for legal aid in Scotland is required to show a 'probable cause' and produce in support of his application a statement corroborated according to the requirements of Scottish law.

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[1] Under the Legal Aid and Advice Act, 1949, Order 1955, legal aid will be available in connection with proceedings in county courts and certain local courts of similar standing as from 1st January 1956.

Legal Aid in Criminal Courts

Free legal aid is already available in the criminal courts in England and Wales under the Criminal Appeal Act, 1907, the Poor Prisoners' Defence Act, 1930, and the Summary Jurisdiction (Appeals) Act, 1933. The Legal Aid and Advice Act, 1949, makes certain procedural changes in the system and, when fully implemented, will transfer financial responsibility for paying for free legal aid from local to central funds. It also lays down the principle of allowing fair remuneration according to the work actually and reasonably done.

Under the Costs in Criminal Cases Act, 1952, the courts also have power, in the case of an indictable offence, to order the reasonable costs of the defence to be paid out of local funds when the accused has been discharged by the magistrates' court or acquitted. A magistrates' court has power under the Act if it dismisses an information on summary trial to order such costs to be paid to the accused by the prosecutor as it considers just and reasonable.

Pending the full implementation of the Legal Aid and Solicitors (Scotland) Act, legal aid in criminal cases is afforded to poor persons in Scotland under the Poor's Roll system, which is administered on a voluntary basis by the legal profession.

In Northern Ireland, free legal aid in criminal cases is afforded to poor persons under the Criminal Justice (Northern Ireland) Act, 1945. The cost of providing free legal aid is met out of public funds.

TREATMENT OF OFFENDERS

The chief aims of the penal system of the United Kingdom are deterrence and reformation. The principle underlying the system is that its effectiveness depends less on the punitive treatment of the detected offender than in its total impact—fear of detection, public trial and conviction and the possibility of punishment, whether by imprisonment or otherwise. The treatment of offenders is therefore based as far as possible upon measures for the social rehabilitation of the offender rather than upon measures intended simply to punish the offender for his crime.

The penalties which may be imposed by the courts according to the law depend on the circumstances of the offence and the offender, and although maximum penalties are prescribed by law, the courts have discretion (within the limits provided) in imposing sentence.[1] In general the courts have power to impose either imprisonment or a fine for serious offences, and, in certain cases, both; while most minor offences are punishable by a fine only, with the alternative of imprisonment for failure to pay within the time allowed. Moreover, it is at the discretion of the court, instead of sentencing an offender, to discharge him absolutely, to discharge him conditionally (i.e. subject to conditions that he commits no offence during a specified period not exceeding twelve months), or to place him on probation (see p. 87). There are special provisions governing the treatment of young offenders (see pp. 85–88). The Criminal Justice Act, 1948, and the Criminal Justice (Scotland) Act, 1949, provide that courts shall not sentence a person under 21 years of age to imprisonment unless they consider that no other method of dealing with him is appropriate.

The death sentence is imposed only on persons found guilty of murder or treason.[2] It may not be passed upon anyone who was under 18 years of age at the time the crime was committed, upon a pregnant woman, or upon anyone who is found to be legally insane. Furthermore, it is the long-established practice for the Home Secretary or the Secretary of State for Scotland to review every capital case before the law is allowed to take its course and to consider whether there are grounds for advising the Crown to exercise the Prerogative of Mercy. Where a reprieve is recommended, the sentence of death is commuted to one of imprisonment for life.[1]

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[1] Except where the offence is punishable by death, when the death sentence must be pronounced, although it is by no means always carried out.

[2] In practice, no death sentences are carried out for treason in time of peace.

Two special types of treatment have been devised to deal with the persistent offender. Offenders of 21 years of age or over may be sentenced to corrective training if they are convicted of an offence punishable with imprisonment for a term of two years or more and have been convicted on at least two previous occasions since attaining the age of 17 of offences punishable with such a sentence. Corrective training is intended to reform the offender as well as to prevent crime and is normally imposed for not less than two or not more than four years, as the court decides.

Persons who are not less than 30 years of age and are convicted of offences punishable with imprisonment for a term of two years or more and have been convicted on at least three previous occasions since attaining the age of 17 of offences punishable with such a sentence and have been sentenced to Borstal, imprisonment or corrective training on at least two of these occasions, may be sentenced to preventive detention. Preventive detention is primarily for the protection of the public, and the sentence runs for not less than five or more than 14 years as the court decides.

Administrative Authorities

In England and Wales, general responsibility for all institutions for the treatment of offenders is vested in the Home Secretary. His statutory powers and duties in this connection include the making of rules for the governance of such institutions, the recommendation of persons for appointment by the Crown as Prison Commissioners, and the appointment of Boards of Visitors.

In the discharge of his duties relating to institutions for offenders, the Home Secretary is advised by an Advisory Council on the Treatment of Offenders, which also acts as the National Working Group for the Economic and Social Council of the United Nations, and as the National Committee of the International Penal and Penitentiary Commission.

Responsibility to the Home Secretary for the administration of prisons, Borstal Institutions and Detention Centres in England and Wales lies with the Prison Commission, assisted by inspectors and by a professional and technical staff. The Prison Commission consists of not more than five Commissioners, who are appointed by the Crown, including the chairman, who is appointed to that office by the Home Secretary. There are also a number of Assistant Commissioners who are inspectors under the Prison Acts.

The oversight of each of these institutions is the responsibility of either Visiting Committees appointed by the justices for those prisons to which convicted persons are committed direct from their courts, or Boards of Visitors appointed by the Home Secretary for the other prisons and institutions. The main functions of the committees and boards are: to act as the superior disciplinary authority of the prison or institution; to constitute an independent judicial body to which any prisoner or inmate may make a complaint or request; and to report direct to the Home Secretary, both by formal annual report and as occasion may require, on every aspect of the administration of the prison. In Borstal Institutions and preventive detention prisons, the boards also advise the Prison Commissioners on the release of the inmates on licence.

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[1] Rather more than half the death sentences passed each year are actually carried out.

The prison systems of Scotland and Northern Ireland are the responsibility of the Secretary of State for Scotland and of the Minister for Home Affairs respectively, and are administered by the Home Departments in Edinburgh and in Belfast.

Prisons

Prisons in England and Wales are of the following types: local prisons (1) of the ordinary type which receive all classes of prisoners direct from the courts, (2) special (these may be open or walled) for short-sentence prisoners, chiefly first offenders; regional training prisons, some of which are open, for first offenders and trainable prisoners of other categories; corrective training prisons; and central prisons for long-term recidivists, preventive detention prisoners and long-term prisoners of the 'Star' class—one for the latter class is an open prison.

In Northern Ireland, with its smaller population, the necessity for several kinds of prison for the separation of various classes of prisoners does not arise to the same extent as in England and Wales. The Scottish system of classification of prisoners is broadly the same as that of England and Wales; but each prison in Scotland accommodates more than one classification group.

Full-time prison officers of all ranks, except chaplains, are permanent civil servants. At the end of September 1955 prison staff of all grades in England and Wales numbered about 7,200. Some 9 per cent of this number were women.

Classification of Prisoners

Every person committed to prison is first received in the local prison serving the court from which he is committed. Subsequently, he may either serve his whole sentence at the local prison or he may be sent to another institution, depending on his age, the length and nature of his sentence, and his personal history and character.

The object of classification is first to ensure the separation of the sexes, of young persons from adults, of untried prisoners from convicted prisoners and of civil prisoners from criminal prisoners; secondly to prevent contamination, among convicted prisoners, of the better by the worse; and thirdly to provide training appropriate to their needs for those among convicted prisoners who seem likely to benefit therefrom.

Training

The main elements of prison training (including corrective training) have been defined as (1) the provision of work which will, so far as is practicable, help to fit prisoners to earn their living after release, with technical training in skilled trades for suitable persons, (2) the provision of suitable educational facilities, and (3) the provision of every opportunity for the development of a sense of personal responsibility, including (for suitable persons) training in open conditions.

Full training can be given only in prisons set aside for the purpose, which provide vocational training courses, based on a Ministry of Labour and National Service syllabus, at which prisoners may receive a theoretical and practical training in a number of skilled trades. The principles on which training is based, however, hold good for all prisons and are applied as far as individual conditions permit.

Employment

Prison industries are organized under the control of a Director of Industries, who has a head office staff of technical officers and supervisors, including a supervisor of farms and gardens, and industrial managers at the prisons.

Except in training and central prisons, where the hours are longer, prisoners in England and Wales spend at present about 25 hours a week in the workshops or in other employment such as building, farm work, domestic work and gardening, in company with their fellow prisoners, and conversation is allowed. In most of the Scottish prisons prisoners are employed for nearly 40 hours a week.

All prisoners are entitled to earn a limited amount from the first day of their sentence; these amounts may be increased for satisfactory output after a specified lapse of time.

Education

Educational schemes are provided in prisons in England, Wales, and Scotland by the local education authorities with the advice of the Government Departments responsible for education in their respective countries. In England and Wales the local authorities are reimbursed for the full cost of their services, and the work is under the organizational control of the Assistant Commissioner for Education in the Prison Commission. Evening Institutes have been established; and a wide range of correspondence courses is made available for those who have a serious desire to improve their education and qualifications.

Educational schemes are supplemented by periodical lectures, film displays, concerts, and dramatic performances. Prisoners may also use the prison library, which in most cases is now stocked by the county, city or borough library committee.

Welfare

A chaplain of the Church of England (in Scotland of the Church of Scotland) and a Roman Catholic priest are appointed to every prison. Ministers of the Methodist Church and of other denominations are either appointed or specially called in as required. The chaplain is generally responsible for welfare in the prison to which he is appointed. Regular services are held, and chaplains and other ministers may visit prisoners in their cells.

Prisoners may also be visited by their relatives and friends at specified intervals and, in England and Wales, by recognized prison visitors asked to serve in this field by the Prison Commissioners. The voluntary work of these visitors is co-ordinated and guided by the National Association of Prison Visitors.

Remission of Sentence

On reception, all prisoners, except those sentenced to preventive detention, are credited with remission of one-third of their sentence (one-fourth in Northern Ireland), provided that this does not reduce their sentence below 30 days. A prisoner sentenced to preventive detention obtains remission of one-third or one-sixth of his sentence according to an assessment of his character, conduct and prospects which is made after he has served a substantial part of his sentence. In addition, at successive stages of a prisoner's sentence, he becomes entitled to additional privileges; for example, he is allowed to have meals and recreation with his fellow prisoners and to have some of his personal belongings in his cell.

For breaches of discipline in prison, the Governor or the Visiting Committee or the Board of Visitors have power to order forfeiture of remission and of privileges.

After-Care of Prisoners

Prisoners from local prisons are assisted on discharge by Discharged Prisoners' Aid Societies, which are local and voluntary bodies supported partly by private and partly by public funds. The work of the local societies is co-ordinated by the

National Associations of Discharged Prisoners' Aid Societies for England and Wales and for Scotland, both of which depend on a grant from public funds for their administrative expenses. For persons discharged from other prisons and from Borstal Institutions, after-care in England and Wales is in the hands of the Central After-Care Association, a voluntary body financed from public funds and governed by a council appointed by the Home Secretary, which includes in its membership representatives of the Ministry of Labour and National Service, of the National Assistance Board and of the Probation Service. The Secretary of State for Scotland appoints an After-Care Council to carry out similar duties in Scotland.

In England and Wales the Association works through local associates, usually Probation Officers, who, since the passing of the Criminal Justice Act, have added after-care to their other duties, and in Scotland through voluntary guardians. These officers make all arrangements for the reception of the prisoner after his discharge, and will advise, assist and befriend him for as long as is necessary or required by statute.

Treatment of Young Offenders

Under the English and Scottish legal systems, a child under the age of eight cannot be charged with an offence, and a child over eight but under fourteen years old charged with an offence other than homicide must be dealt with in a juvenile court. In England and Wales a young person between fourteen and seventeen years of age charged with an indictable offence (see p. 71) may be dealt with summarily (as is usually the case) or committed for trial by jury. In certain cases young persons may claim to be tried by jury, though this right is rarely exercised. In Scotland all young persons up to the age of 17 years of age charged with offences must be dealt with in juvenile courts.

The following methods of treatment are available in law for dealing with children and young persons who have been found guilty of committing an offence: absolute discharge; conditional discharge; fines (imposed upon the offender himself if a young person, or upon his parents if a child); probation (see p. 87); committal to the care of a fit person (normally the appropriate local authority) until the age of 18; or a period of detention in one of the different types of institution which are available when institutional treatment is considered necessary.

Remand Homes

Remand Homes are provided by local authorities for the safe custody of boys and girls under the age of 17 before their appearance in court, or between court appearances (while inquiries are made as to the best method of treatment for them), while they are awaiting vacancies in approved schools, or for a short period (up to a month) of punitive detention. There are facilities for observation, and valuable reports can be provided as a result of the stay in a Remand Home.

Borstal Institutions

There are various types of Borstal Institution providing training and conditions suitable to different types of character and stages of development. For boys in England and Wales there are two Borstal Allocation Centres, and 14 Training Borstals, one Correction and one Recall Centre; and there are two Training Borstals and one Recall Centre for girls. In Scotland, there are four Borstals for boys and two for girls; and in Northern Ireland, one for boys and one for girls. The period of the sentence is in effect four years (three years in Scotland and Northern Ireland), the first part being up to three years' training (two in Northern Ireland) in a Borstal Institution, and the second a period of controlled freedom under supervision. In

Scotland the supervision period is for one year from the date of release from the Institution or until the expiration of three years from the date of sentence, whichever is the shorter. The system of training seeks the all-round development of character and capacities, and is based on progressive trust demanding increasing personal decision, responsibility and self-control. There is much freedom of movement and many Borstals are conducted in open conditions. An initial period of classification ensures that each boy or girl is sent to the institution best suited to his or her requirements.

Approved Schools

Approved Schools are residential schools approved by the Home Secretary under the Children and Young Persons Act, 1933, by the Secretary of State for Scotland (working through the Scottish Education Department) under the similar Scottish Act of 1937, and by the Minister of Home Affairs in Northern Ireland under the similar Northern Ireland Act of 1950, for the education and training of young offenders and children committed to them by the courts as in need of care or protection. Approved Schools may be provided by local authorities, by voluntary organizations concerned with the welfare of children on a national scale, or by local committees formed for the purpose by people interested in such work. The number of Approved Schools in England and Wales in mid-1955 was 127 but was likely to be reduced to 119 by the end of 1955, owing to the decrease in juvenile delinquency. There are 23 Approved Schools in Scotland and six in Northern Ireland.

The schools are for boys only or for girls only. They are formally classified according to the age ranges of the children on admission, and include separate schools for Roman Catholic children. The assignment of a child to a school in the appropriate age group is determined by a variety of considerations, including the location of the school in relation to the child's home, the type of training provided, and the probable reaction of a child to the individual personalities of the staff. In general, the education follows the lines of that given in ordinary schools, with vocational training for older boys and girls; the emphasis is on character building, and close attention is given to after-care.

The period for which a child or young person may be detained in an Approved School is determined by law and is three years, except that children under the age of 12 years and 4 months at the time of committal may be kept until the age of 15 years and 4 months,[1] while those over the age of 16 on committal can be detained only up to the age of 19, or 19½ if they have been found guilty of absconding or of serious misconduct in an Approved School. School managers are under an obligation to review the progress of each child in their school towards the end of the first year of his detention and thereafter at least quarterly, with a view to releasing him on licence as soon as he is fit to go out.

Statutory responsibility for after-care rests on the school managers. A boy or girl on release remains under the care of the managers during the periods of licence and supervision. The period of licence lasts until the expiry of the time for which the boy or girl might have been legally detained in the school. The period of supervision lasts for three years more, or until the boy or girl reaches the age of 21, whichever is the shorter period. Managers are assisted in their after-care work by Welfare Officers and social service organizations.

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[1] In Northern Ireland the period is three years or until the child reaches the age of 14 years and 4 months, whichever is the later. School-leaving age in Northern Ireland is still 14.

Attendance Centres

Attendance Centres have been established in England and Wales in some 32 towns to deal with boys between the ages of 12 and 17 found guilty of offences for which an adult can be sentenced to imprisonment. Attendance at such a centre is a comparatively new form of treatment (the first centre was opened in 1950) designed to teach young offenders a respect for the law and to give them some instruction in the proper use of leisure. Boys ordered to attend centres must do so during their spare time on Saturday mornings or afternoons; they may be required to attend for up to three hours on any one occasion and for not more than twelve hours in all. The activities include a period of instruction in handicrafts, or a lecture (e.g., on first aid) and a period of physical training or disciplinary tasks, under supervision. Efforts are made at the centres to induce the boys to join a youth club or other suitable organization.

Detention Centres

Detention Centres are designed to provide a 'short sharp shock' for those who have not yet developed a definitely anti-social attitude, but who need to be taught that the law cannot be defied with impunity. The regime in such a centre is designed to deprive the boy of his liberty and of all the elements of what he thinks of as a 'good time', for a period varying between one and six months, and to oblige him for this period to live a brisk disciplined life, maintaining the highest possible standards at the highest possible tempo. Each boy in a detention centre must be alert, punctual and tidy, and emphasis is placed on the inculcation of obedience, cleanliness and good manners. The routine provides a normal working week of 44 hours of day and evening classes, including one hour daily devoted to physical training. Boys of compulsory school age receive full-time education. In 1955 there were two Detention Centres in England and Wales—a junior centre for boys over 14 and under 17, accommodating about 60 boys, and a senior centre for boys over 17 and under 21, accommodating about 75 boys. Two other Detention Centres are to be opened before April 1956.

Probation

The probation system is designed to secure the rehabilitation of an offender while he remains at work or at school in the community under the supervision of a probation officer, whose duty it is to advise, assist and befriend him. A cardinal feature of the system is that it relies on the co-operation of the offender. Before making a probation order, the court must explain its effects to the person concerned and inform him that if he fails to comply with its requirements he will be liable to be dealt with for the original offence. A probation order cannot be made without the consent of the person concerned unless (in England and Wales only) he is under 14 years of age. The order usually requires the probationer to keep in regular touch with the probation officer, to be of good behaviour and to lead an industrious life. It may also require him to live in a specified place, or to submit to treatment for his mental condition. A probation order is made for not less than one year and not more than three years.

Every magistrates' court and superior criminal court must have available the services of probation officers of both sexes. In 1955 the total numbers were: 1,229 whole-time and 66 part-time probation officers in England and Wales, 14 whole-time and one part-time in Northern Ireland, and 110 whole-time and 35 part-time in Scotland. The appointment of probation officers is the responsibility of the Home Secretary in the Metropolitan Magistrates' Court area; elsewhere it is the responsibility of probation committees appointed by magistrates in England and

Wales, and by local authorities in Scotland where appointments of probation officers are subject to a confirmation by the Secretary of State for Scotland. Training facilities in England and Wales are provided by the Home Office on the advice of the Probation Advisory and Training Board. In Scotland training is provided during the first year of appointment and before the officer is allowed to make probation work his permanent career.

THE POLICE SERVICE

The police service of Great Britain is organized and controlled on a local basis under the guidance of those Ministers of the Crown who are responsible for the maintenance of law and order in their respective countries. In England and Wales the responsible Minister is the Home Secretary and Minister for Welsh Affairs; in Scotland, the Secretary of State for Scotland. In Northern Ireland the police force (see p. 91) is controlled by an Inspector-General who is responsible to Northern Ireland's Minister of Home Affairs.

POLICE IN GREAT BRITAIN

Police Forces

There are 126 separate, independent police forces in England and Wales, defined according to area of responsibility as county forces, borough forces, combined forces (which are forces whose area of responsibility extends over neighbouring counties or boroughs), the Metropolitan Police Force (which is responsible for the county of London, the county of Middlesex, parts of adjoining counties and three county boroughs) and the City of London force. In Scotland there are 33 forces, including county forces, burgh forces and combined forces.

In England and Wales and Scotland, police forces vary considerably in size according to the area and population which they serve. Thus the Metropolitan Police Force has an establishment of nearly 20,000, while the smallest force in Scotland numbers 16.

The present strength of the regular police force in Great Britain is approximately 71,200 men and 2,200 women.

Police Authorities

In the counties of England and Wales the police authority is the Standing Joint Committee, half of whose members are members of the county council while the other half are justices of the peace. In the boroughs the police authority is known as the Watch Committee and is elected by the council from its members. The police authority of a combined force is made up of representatives of the constituent areas as prescribed in the scheme under which they combine.

In the Metropolitan police district the Home Secretary is the police authority. In the City of London the Common Council is the police authority, although it usually appoints a standing committee to deal with all police matters on its behalf.

In Scotland the police authority for the counties is the county or joint county council; in the large burghs it is the town council; where there are combined forces there is a joint police committee.

It is the statutory duty of the police authorities to establish and maintain efficient police forces for their areas. They are also responsible for the appointment of the chief officer of police in their areas, subject to the approval of the Home Secretary in the provinces of England and Wales, to the approval of the Crown in the City of London, and to the approval of the Secretary of State for Scotland in Scotland. In the Metropolitan police district the chief officer of police and his immediate subordinates are appointed by the Crown on the recommendation of the Home Secretary.

Central Authority

Co-ordination and a certain measure of central control are exercised through detailed police regulations which are issued for their respective countries by the Home Secretary and the Secretary of State for Scotland, who are required by the Police Act, 1919, 'to act in consultation one with another' in this connection. The police regulations cover the 'government, mutual aid, pay, allowances, pensions, clothing, expenses and conditions of service' of the members of all police forces to which the Act applies.

The Secretaries of State are advised on questions relating to the conditions of service of the police by the Police Council for Great Britain, a negotiating body established on Whitley Council lines in September 1953. In their supervisory responsibilities they are assisted by Her Majesty's Inspectors of Constabulary, who inspect each force, except the Metropolitan Police Force, at least once a year. There are at present four inspectors in England and Wales and one in Scotland.

Central control also derives from the fact that all police authorities receive a Government grant equal to half their net expenditure reckoned in accordance with the provisions of Orders made under the Miscellaneous Financial Provisions Act, 1950 (as regards England and Wales), and the Police (Scotland) Act, 1946 (as regards Scotland). These Orders empower the Home Secretary and the Secretary of State for Scotland to withhold the grant in whole or in part, permanently or for such time as they may determine, if they are not satisfied that a police area is efficiently policed, that a force is properly maintained and administered, or that the rates of pay or allowances are as prescribed or approved by them.

Centrally Run Services

During recent years the Home Office has established a number of common services to supplement those provided by the police authorities for their own use. In England and Wales such services include a training service, which provides a number of residential district training centres and a central police college; an installation and maintenance service of wireless equipment for the police; and a forensic science service, which provides laboratories for the use of regional groups of forces. In Scotland there is a central police college, which provides training courses for recruits and courses of higher training; but the installation and maintenance of wireless equipment is a direct charge upon the police authorities concerned and there is no centrally run forensic service. The Glasgow police force, however, operates an extensive laboratory, the service of which is available to the whole of the Scottish police, and the universities of Aberdeen, Edinburgh, Glasgow and St. Andrews render assistance when required.

In addition to the common services, a number of national services are provided by the Metropolitan Police Force, whose functions in this respect include: (*a*) the maintenance of the Criminal Record Office, which is a national registry of crimes and their perpetrators containing a Central Fingerprint Bureau, available to all police forces of the United Kingdom and certain foreign forces; (*b*) the publication of the *Police Gazette*,[1] which contains particulars of people wanted for crime and details of stolen property, and is supplied without charge to the police forces of the United Kingdom and to certain Commonwealth and foreign forces; (*c*) the organization and control of the Special Branch of the Criminal Investigation Department at

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[1] A Scottish *Police Gazette* is published by the City of Glasgow Police Force.

New Scotland Yard,[1] whose duties include the protection of Royalty, Ministers of the Crown, and distinguished foreign visitors; and (*d*) the carrying out of extradition orders made by the courts. For these services, the Metropolitan Police Force receives an additional Exchequer grant.

Police Officers

There are several different kinds of police officer in Great Britain: regular police officers who usually serve for 25 years or more and thereafter retire on pension; members of the first police reserve, which is composed almost entirely of police pensioners or men with previous police experience who are prepared to give whole-time paid service to a particular force in an emergency, whether national or local; members of the Special Constabulary, which consists of volunteers who perform short periods of duty without pay in their spare time from their normal occupations; the police of certain public services, e.g., the British Transport Commission Police, the Civil Aviation Constabulary, the Port of London Authority Police and other dock and harbour forces (who, although not subject to the supervision of the Home Secretary or the Secretary of State for Scotland, have duties and powers analogous to those of ordinary constables but limited to the premises and immediate neighbourhoods of their employers), the police of the defence services, i.e. the Admiralty Constabulary, the War Department Constabulary, which guards War Office lands and military property, the Royal Marine Police, who are employed chiefly in dockyards, and the Air Ministry Constabulary.

In general, entry to the regular police force is open to men between the ages of 19 and 30, although an exception may be made in the case of ex-regular Navy, Army and Air Force men of over 30 years of age. Women entrants in England and Wales must be between the ages of 20 and 35, and in Scotland between 20 and 30 years old. The standard police ranks in Great Britain, except in the Metropolitan police district, are: chief constable, superintendent, inspector, sergeant and constable. The following intermediate ranks may also be adopted where the field of operations renders them necessary: assistant chief constable, chief superintendent, chief inspector and, in England and Wales only, station inspector, station sergeant and acting sergeant. In the Metropolitan police district the chief officer is the Commissioner of Police of the Metropolis. He is assisted by a Deputy Commissioner and four Assistant Commissioners. Next in rank are commanders, then deputy commanders; thereafter (i.e. from chief superintendent downwards) the ranks are the same as in the rest of the country. In the City of London the ranks are the same as in the provinces except that the chief officer is called the Commissioner of Police and the second in command is an Assistant Commissioner.

No member of the police service may belong to a trade union, since it is a basic principle of the service that its members must not only be free from political bias, but must also be seen to be free of it. The Police Act, 1919, however, laid it down that the police should have a statutory representative organization of their own. This is known in England and Wales as the Police Federation and in Scotland as the Scottish Police Federation and all constables, sergeants and inspectors belong to it. Any part of the organization can make representations to the individual police authority, to the individual chief officer of police, or, in England and Wales, to the Secretary of State for the Home Department and, in Scotland, to the Secretary of State for Scotland. Delegates from the Joint Central Committees of the two Federations sit on the Police Council.

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[1] The Metropolitan Police Force is not the only force with a Criminal Investigation Department; all provincial forces have their own Criminal Investigation Departments.

Police Duties

Every police officer in Great Britain is an independent holder of a public office. His powers as a constable, whether conferred by statute or by common law, are exercised by him by virtue of his office and cannot be exercised on the responsibility of any person but himself. Thus, unless acting in pursuance of a magistrate's warrant, a police officer is liable for any wrongful or mistaken action on his part, for he is not the servant of the police authority, and in discharging his duties must rely on his own discretion and his own knowledge of the law.

The manifold functions of a police officer as a constable range from road or street patrolling and traffic control to arresting persons committing offences or (in certain cases) under suspicion of acting in an unlawful way. In England and Wales (although not in Scotland where the police investigate cases and report to the prosecutor) the police are responsible for initiating, and in most cases conducting, prosecutions, except those which must be dealt with by the Director of Public Prosecutions, i.e. if the offence is punishable by death; or when an offence is referred to him by a Government Department, subject to his discretion; or in any case which appears to the Director 'to be of importance or difficulty or which for any reason requires his intervention'.

In addition to their duties as constables, police officers are sometimes appointed, usually by the local authority, to be inspectors under an Act of Parliament; as such, their duties may include the inspection of weights and measures, and investigation into diseases of animals.

Police Cadets

Many police forces offer free training and paid work in police offices and stations to boys between school-leaving age and the age at which they are called up for National Service. Selection is limited to boys who are likely to become useful members of the Force. On completing their full-time National Service, or at the age of 19 years if deferment of National Service is granted, the cadets are eligible for appointment as constables. One police force has a similar cadet scheme for girls.

POLICE IN NORTHERN IRELAND

The Royal Ulster Constabulary

The general control of the Royal Ulster Constabulary, which is a State Force, is vested in an Inspector-General, who is responsible to the Minister of Home Affairs. The cost of the force is met from the Northern Ireland Exchequer, the County Borough of Belfast contributing a token sum of £25,000 annually towards the cost of policing the City of Belfast.

The present strength of the Royal Ulster Constabulary is approximately 2,700 officers and men. Conditions of service and pay follow closely on the lines of the police service in Great Britain, the general duties pertaining to the tasks being similar in all respects.

In addition to the Royal Ulster Constabulary, there exists in Northern Ireland an auxiliary police force called the Ulster Special Constabulary, which is also under the general control and direction of the Inspector-General. In the main, this force is a part-time force and its duties cover training and assistance to the regular force on special occasions. If necessary, however, its part-time personnel may be mobilized for full-time duty and its duties extended to cover ordinary police duties. The present strength of the Special Constabulary is approximately 10,300 officers and men.

THE FIRE SERVICE

The fire services in Great Britain are organized on a local basis, subject to a measure of central control exercised by the Secretary of State for the Home Department (in England and Wales) and the Secretary of State for Scotland (in Scotland). The fire services in Northern Ireland are described on pp. 94–95. Every place throughout the United Kingdom is covered by a public fire brigade.

FIRE SERVICES IN GREAT BRITAIN

There are at present 135 local authority fire brigades in England and Wales and 11 in Scotland.

Fire Authorities

The responsibility for fire-fighting functions, which was vested in the two Secretaries of State on a national basis as an emergency measure during the second world war, was restored in 1948 to local government control under the Fire Services Act, 1947. The effect of the Act was to transform the National Fire Service (established in 1941) into separate fire brigades administered, in England and Wales, by the county or county borough councils, who were created the Fire Authorities for their areas and were given powers and duties which they exercise either separately or as Combined Authorities where neighbouring councils care to make such arrangements to increase the efficiency of the service. The Act provides that each Fire Authority which is a county council (except London) must establish a Fire Brigade Committee, consisting of both county council members and representatives of the county district councils in the county, to deal on the county council's behalf with matters concerning fire prevention and control. In Scotland, the local authorities are grouped in eleven areas each with a single brigade; with the exception of Glasgow, where the town council of the city is the responsible authority, each area is administered by a Joint Committee representative of the councils of the counties and large burghs in the area.

Central Control

The Secretary of State for the Home Department and the Secretary of State for Scotland are empowered to make regulations prescribing such matters as conditions of service, standards of efficiency and the organization of training in the local fire brigades. In matters affecting the fire brigades as a whole (excluding regulations about conditions of service and similar matters) each Secretary of State is advised by a Central Fire Brigades Advisory Council, consisting of representatives of the local authority associations, representatives of the Chief Officers (Firemasters in Scotland) and other members of the brigades, and other persons having special qualifications for the purpose. The Advisory Councils are not concerned with the conditions of service of members of the brigades. On these subjects the Secretaries of State are advised by the National Joint Council for Local Authorities' Fire Brigades in Great Britain and the National Joint Council for Chief Officers of Local Authorities' Fire Brigades in Great Britain.

Central control is also exercised through the Inspectors of Fire Services, whose duties include advising the Secretaries of State on technical matters. In 1955 there were 11 inspectors and assistant inspectors in England and Wales and one inspector and an assistant inspector in Scotland.

Establishment Schemes

Each Fire Authority is required to draw up a scheme showing the establishment of officers and other ranks (both whole-time and part-time), the number and location of fire stations and the number and type of vehicles and appliances considered necessary for the provision of an all-over cover of its area. Details of establishment schemes, which must be approved by each Secretary of State for his own country, vary considerably according to the fire risks in the area concerned; but in an English county of about 500,000 acres and a mixed urban and rural population of some 750,000, for example, there might be 30 whole-time and part-time fire stations equipped with 150 vehicles and appliances and served by a whole-time force of approximately 250 and a part-time force of approximately 400 officers and men.

It is the duty of each fire authority to purchase such vehicles and equipment as are required under the establishment scheme. Equipment is standardized, and appliances are bought by fire authorities to Requirement Specifications which ensure that essential standards are maintained, and yet allow sufficient freedom of design to meet local requirements and further developments.

Operational Methods

Each Fire Authority is required to appoint a Chief Officer (Firemaster in Scotland) to be the chief administrative and executive officer for the fire services in its area. The appointment must be ratified in England and Wales by the Secretary of State for the Home Department and in Scotland by the Secretary of State for Scotland. The Chief Officer or Firemaster is responsible to the Fire Authority for seeing that both the fire brigade and the fire department (which is the administrative centre and staff headquarters for the fire brigade) are organized and managed in accordance with policy laid down.

Operational control is centralized at headquarters; but it is generally exercised on a more local basis by divisional officers, in charge of geographical divisions into which most areas are divided for the purpose. Each divisional officer has at his disposal a small staff of whole-time, and a varying number of part-time, officers and men; and he is responsible for mobilizing this force in the strength necessary for dealing with any outbreaks of fire in his division. Constant communication is maintained between divisional and brigade headquarters; and if at any time an outbreak of fire should grow beyond the capabilities of a divisional force, help is sent from one or more neighbouring divisions in its area, or even from the area of another Fire Authority. Under arrangements for mutual help made by all Fire Authorities, the nearest available force is sent to the scene of a fire, regardless of area boundaries.

Firemen

Firemen in Great Britain include: whole-time firemen; part-time firemen—either 'retained' firemen, who undertake, in return for a small retaining fee, to attend fires if they are called upon to do so, or 'volunteer' firemen, who receive no remuneration; auxiliary firemen, who are enrolled as part of the local authority civil defence organization as members of individual brigades under the command of Chief Officers or Firemasters, and whose activities are restricted (except in a war emergency) to such duties as are desirable for training; and members of fire-fighting organizations with specialized functions, which are outside the scope of the 1947 Act, e.g., those maintained by the War Office, the Air Ministry, the Ministry of Transport and Civil Aviation and by some of the more important industrial and commercial concerns.

Ranks in the fire services (for men) are chief officer, assistant chief officer (firemaster and assistant firemaster in Scotland), divisional officer, assistant divisional officer, station officer, sub-officer, leading fireman and fireman. Ranks in the women's branch, which is mainly concerned with controls, administrative duties and duties of a clerical nature, are (for Great Britain as a whole) group officer, assistant group officer, senior leading firewoman, leading firewoman, and firewoman. Promotion in the lower ranks of the fire-fighting forces is by examination and by merit, and in the higher ranks by merit only.

Training for full-time firemen in England and Wales includes practical and theoretical instruction given to recruits at a training school, which is run either by the Fire Authority itself or by a neighbouring Authority, and refresher courses for firemen, arranged by Fire Departments. The training of recruits and junior ranks in Scotland is carried out at a central training school which is the responsibility of the Scottish Home Department. Courses for officers and potential officers of Fire Authority brigades are held at the Fire Service College, at Wotton House, near Dorking, Surrey, which is maintained by the Home Office and the Scottish Home Department as the central training institution for the fire services.

Finance

Every Fire Authority is required to submit to the Home Secretary or to the Secretary of State for Scotland an annual statement showing its expenditure and income in connection with the provision of fire services during the preceding year. The Government pays a grant of 25 per cent of the net expenditure approved by the Home Office or the Scottish Home Department, less an annual contribution towards the expenses of the Fire Service College (and in Scotland a contribution towards the Scottish Central Training School); the rest of the money is raised from local authority funds.

Research

The principal means by which research on fire prevention and fire-fighting is carried on is the Joint Fire Research Organization, the cost of which is shared equally between the Government and the Fire Offices' Committee (a Committee of the Insurance Companies dealing in fire risks). The Organization makes continuing research into all aspects of fire prevention and fire-fighting and controls a Fire Research Station at which practical tests are carried out.

FIRE SERVICES IN NORTHERN IRELAND

The Fire Authorities in Northern Ireland, as established by the Fire Services (Amendment) Act (Northern Ireland), 1950, are the Belfast Corporation, which controls the Belfast Fire Brigade and is responsible for the area inside the city boundary, and the Northern Ireland Fire Authority, which covers the rest of the country outside Belfast.

The Belfast Fire Brigade maintains five whole-time stations and has an establishment of 182 officers and men manning 12 appliances, while the Northern Ireland Fire Authority has one whole-time station in Londonderry and 42 other stations throughout the remainder of the area, and an establishment of 91 whole-time officers and men and 690 part-time firemen, manning 66 appliances.

Ranks of Firemen

The ranks of firemen in Northern Ireland are: for the Northern Ireland Fire Authority—fire force commander, divisional officer, assistant divisional officer, senior company officer, company officer, section leader (retained brigades only), leading fireman and fireman; and for the Belfast Fire Brigade—chief officer, divisional officer grade 2, divisional officer grade 3, assistant divisional officer, station officer, sub-officer, leading fireman and fireman. There are only a few women in the Northern Ireland Fire Services, all of the rank of firewoman.

Finance

The Fire Services (Amendment) Act (Northern Ireland), 1953, passed in December 1953, provides that for the three financial years commencing 1st April 1953 the Northern Ireland Fire Authority may receive a Fire Service Grant made up of 50 per cent of loan charges in respect of capital expenditure, subject to a maximum grant of £22,500, together with 50 per cent of the first £110,000 of non-capital expenditure and 25 per cent of the excess over that amount. The expenditure in excess of the Fire Service Grant is apportioned among the local authorities. The Belfast Fire Brigade, however, cannot qualify under the Fire Services Acts for the payment of Fire Service Grant.

III. DEFENCE

THE DEFENCE SYSTEM

Britain's defence policy is the responsibility of the Minister of Defence, who, under the general direction of the Prime Minister and the Cabinet, of which he is a member, is answerable for the 'formulation and general application of a unified policy relating to the armed forces of the Crown as a whole and their requirements'.

The higher direction of each of the three fighting Services—the Royal Navy, the Army and the Royal Air Force—is on similar lines. Supreme control is in the hands of Parliament, which makes annual financial provision for defence needs. By limiting provision to the current year, Parliament ensures an annual review of the state of each Service.

The Minister of Defence answers for all matters of policy common to the three Services and their supply. He is responsible for the apportionment of available resources between the three Services and for seeing that the composition and balance of forces within each Service accord with strategic policy. Each of the three Service Ministers—the First Lord of the Admiralty, the Secretary of State for War (who deals with the Army), and the Secretary of State for Air—is responsible to Parliament for the administration of his own Service; and the Minister of Supply is similarly responsible for the Service supplies procured by his Department. The Chiefs of Staff Committee, which comprises the professional heads of the three Services and an independent chairman who is a senior officer of one of the Services, is responsible for preparing and advising upon strategic plans and policy for consideration by the Cabinet.

Policy

Britain's defence policy is reviewed in the annual Statement on Defence presented each spring to Parliament by the Minister of Defence immediately before the detailed Estimates of the Service Departments. The statement outlines the programmes of the three Services for the ensuing year and summarizes the proposed defence budget.

The *Statement on Defence* 1955 redefined the Government's defence policy in the light of the emergence of the thermo-nuclear or hydrogen bomb and the international situation at the time. The defence problem, said the Statement, remained fundamentally a dual one. 'We have to prepare against the risk of a world war and so prevent it; it is on the nature of these preparations that the existence of thermo-nuclear weapons has its main effect.' At the same time Britain must continue to play its part in the defence of the interests of the free world as a whole, and particularly of the Commonwealth and Empire, in meeting 'limited aggression'—either overt armed intervention, as in Korea, or infiltration and subversion; and must meet the many other peace-time commitments overseas arising from its position as a great Power with world-wide responsibilities. Announcing the Government's decision to proceed with the production of thermo-nuclear weapons, the Statement said that from a universal realization that the results of a major war could only be entirely disastrous for both sides, there might emerge a new hope. The nuclear weapon was a most powerful deterrent which in the Government's view had significantly reduced the risk of war on a major scale. The United Kingdom would continue to strive for international agreement on a practical scheme of disarmament with adequate safeguards, but until this was achieved the 'Grand Alliance' of the free world must maintain its strength.

Each of the three fighting Services has a contribution to make to these aims, and their roles are complementary. To meet the changes brought about by the advent of new weapons, current plans provide, within the limits of economic resources, for a better equipped and maintained active Fleet; a smaller, better disposed and more mobile Army; and a more powerful Air Force including, in particular, an effective strategic bomber force.

Defence plans are made in full co-operation with Britain's allies in the North Atlantic Treaty Organization and Western European Union, in the South-East Asia Collective Defence Treaty and in the Baghdad Pact. Close liaison is maintained with other Commonwealth countries, between whose forces there is considerable standardization of equipment, weapons and training techniques and interchange of personnel; regular Service conferences are held and there is intimate co-operation over regional planning and strategy.

Finance

After the end of the second world war the strength of the armed forces was drastically reduced. It was not until growing world tension made it inevitable that this trend was first halted and then reversed. Following the outbreak of the war in Korea in 1950, the United Kingdom embarked on a programme for building up its armed forces, which aimed at increasing both manpower and supplies of armament and equipment. Annual defence expenditure, excluding the sterling counterpart of United States defence aid, rose from £777 million in 1950–51 to some £1,400 million in 1952–53. Over the same period the strength of the active and reserve forces increased from 827,000 to nearly 1½ million.

Since its inception, the programme has been subject to periodic reviews in the light of changing conditions, and in 1952 it was announced that in order to keep it within the limits of national economic strength, some modifications had been made and rearmament would be spread over a longer period than had originally been planned. This reorganization of the programme initiated the policy of 'the long haul'. In carrying out this policy, it is the Government's aim progressively to increase the efficiency of the armed forces and to take advantage of all new developments likely to increase fighting strength and to promote economy of effort. Defence research and development continues to have high priority.

In October 1955 the Government announced its decision, following an examination of the long-term plan in the light of the United Kingdom's obligations overseas, the cost of the defence programme, and the demands made by defence on resources of manpower and materials, to reduce the strength of the active forces by adjusting the rate of call-up for National Service (see p. 101).

The Defence Budget for 1955–56 amounted to £1,537·2 million. This compares with a total of £1,639·9 million planned for 1954–55. Actual expenditure in 1954–55 was, however, some £120 million less than was originally estimated. The figure for 1955–56 includes provision for expenditure representing £43 million of the sterling equivalent of aid from the United States of America (as against £88·36 million in 1954–55). In addition to the Defence Budget it was estimated that a further £69·66 million would be spent on home defence preparations under civil votes (including loan expenditure by the Post Office).

The Ministry of Defence estimate consists mainly of contributions to international defence organizations, including contributions to the NATO common infrastructure programmes.[1] The 1955–56 Estimate includes £12·6 million on account of infrastructure.

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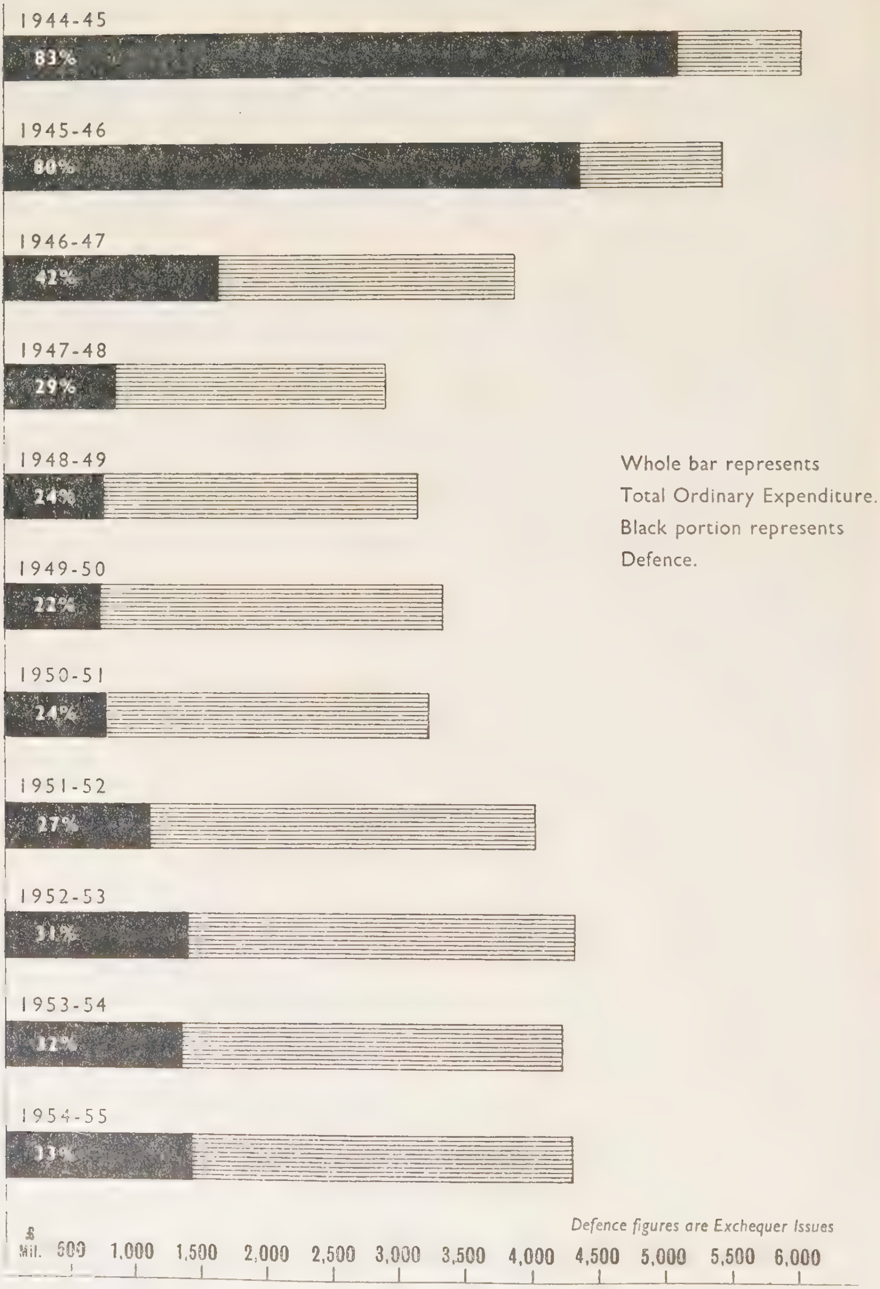
[1] 'NATO common infrastructure' has been defined as capital investment in basic facilities, such as airfields, signals systems, headquarters, etc., designed for common use. The United Kingdom is contributing 11½ per cent of the cost of the current programme.

DEFENCE EXPENDITURE 1945-55

in relation to Total Ordinary Budgetary Expenditure



The allocation between the various Services is shown in Table 5.

TABLE 5

NET DEFENCE ESTIMATES, 1955–56

£ million

	Total	*After allowing for US aid*
Admiralty	347·00	340·50
War Office	484·00	474·00
Air Ministry	540·40	513·90
Ministry of Supply	147·50	147·50
Ministry of Defence	18·30	18·30
TOTAL	1,537·20	1,494·20

Table 6 gives figures from successive Exchequer accounts showing defence expenditure in relation to total expenditure.

TABLE 6

EXCHEQUER ACCOUNTS *£ million*

	1950–51	1951–52	1952–53	1953–54	1954–55	*Estimates* 1955-56(*a*)
Revenue	3,978	4,433	4,439	4,368	4,738	4,710
Ordinary expenditure:						
Consolidated Fund Services (*b*)	545	592	667	674	665	699
Supply:						
Defence (*c*)	777	1,110	1,404	1,365	1,436	1,494
Civil	1,902	2,304	2,231	2,190	2,158	2,315
Tax collection	34	47	49	45	46	54
TOTAL	3,258	4,053	4,351	4,274	4,305	4,562
Current surplus	720	380	88	94	433	148
Net 'below-the-line expenditure'	473	529	524	391	501	584
Over-all surplus (+), deficit (−)	+247	−149	−436	−297	−68	−436

(*a*) April Budget; but see p. 282 on Autumn Budget.
(*b*) Mainly interest on debt.
(*c*) Allowing for the sterling counterpart of United States defence aid, and excluding expenditure on civil defence, industrial capacity (defence) and strategic reserves.

Defence expenditure without allowing for the sterling counterpart of United States aid represents about one-third of total estimated ordinary Government expenditure 'above the line'. At present it is taking about one-tenth of the gross national product and involves the United Kingdom in the spending of about £300–£350 million of foreign exchange a year.

Manpower

Each of the three Services is made up of a nucleus of regulars in addition to men called up for National Service. Each is supported by reserve and auxiliary forces.

Compulsory military service in peace time was first introduced in Britain in 1939, shortly before the outbreak of the second world war. Under the National Service Acts, 1948–50, fit male British subjects between the ages of 18 and 26 ordinarily resident in Great Britain are liable (with certain limited exceptions) to serve for two years in one of the armed forces.[1] After this period of full-time service they must serve for a period of three and a half years with one of the reserve forces, giving in all five and a half years of whole-time and part-time service. During the latter period they may be called upon to undergo up to 60 days' training in all,[2] but not more than 21 days in any year. In addition, National Service men called up before 31st December 1953 remain statutorily liable, on completion of their 5½ years' National Service liability, to recall as reservists up to 30th June 1959, but are not required to carry out training during this latter period of reserve liability.

The Ministry of Labour and National Service calls up the men from civil life for registration and medical inspection, and allots them to the Services. The Army is by far the biggest user of National Service men. In 1955 nearly half the Army strength was provided by National Service men as against under 30 per cent of the Royal Air Force and only some 8 per cent of the Royal Navy.

Table 7 shows the strength of the various Services on 1st October 1955.

TABLE 7

STRENGTH OF THE ARMED FORCES, OCTOBER 1955

United Kingdom	Royal Navy (*a*)	Army	RAF	Total
Regular strength (male)	110,600	210,500	170,400	491,400
National Service	10,600	199,200	70,400	280,200
Women (including nurses) ..	4,200	7,200	6,900	18,300
Total	125,400	416,900	247,600	789,900
Reserve and Auxiliary Forces (*b*)	25,600	464,700	146,700	637,000
COMBINED TOTAL	151,000	881,600	394,300	1,426,900

Note: Figures are rounded to the nearest hundred, so the columns do not necessarily add up exactly.

(*a*) Includes Royal Marines.

(*b*) Figures for Reserve and Auxiliary Forces (which include women) relate only to volunteer reserve and auxiliary forces having a training liability and to National Service reserves. They do not cover the whole of the Reserve Forces available in emergency, the total strength of which is much greater.

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[1] The upper age limit may be extended, under the National Service Act, 1955, in the case of men absent from Great Britain in the last year of their liability. Men employed in certain occupations are granted deferment of National Service, in the national interest, for as long as they are engaged in those occupations. This provision applies to men in certain coalmining occupations, merchant seamen, seagoing fishermen who are members of the Royal Naval Reserve (Patrol Service), regular whole-time agricultural workers whose call-up would mean a loss in food production, a small number of highly skilled scientists and engineers engaged on work of high priority or on fundamental research, a very small number of shale oil underground workers, and a limited number of police cadets.

[2] In October 1955 it was announced that for most reservists the training time during the 3½ years would be reduced to 20 days, though a maximum of 60 days would remain necessary for some specialists.

In October 1955 the Government announced its decision to reduce the size of the active forces (then nearly 800,000, of whom 280,000 were on National Service) to about 700,000 by March 1958. Over five years from March 1953 this would be a reduction of 170,000, or more than one-fifth. It would be brought about by slowing down the rate of call-up for National Service and allowing the general age of call-up to rise from 18 to 19 years; earlier call-up could be arranged in special cases to avoid hardship. The principle of universal liability for National Service remained and the period of full-time Service continued to be two years.

Commissioned Ranks

The following are the main commissioned ranks in the three fighting Services; each rank is shown parallel to its equivalent in the other Services:

Royal Navy	*Army*	*Royal Air Force*
Admiral of the Fleet	Field-Marshal	Marshal of the RAF
Admiral	General	Air Chief Marshal
Vice-Admiral	Lieutenant-General	Air Marshal
Rear-Admiral	Major-General	Air Vice-Marshal
Commodore (1st and 2nd Class)	Brigadier	Air Commodore
Captain	Colonel	Group Captain
Commander	Lieutenant-Colonel	Wing Commander
Lieutenant-Commander	Major	Squadron Leader
Lieutenant	Captain	Flight Lieutenant
Sub-Lieutenant	Lieutenant	Flying Officer
Senior Commissioned Gunner, etc.	Second Lieutenant	Pilot Officer

Inter-Service Organizations

In addition to his co-ordinating functions outlined on page 96, the Minister of Defence also has ministerial responsibility for certain inter-Service organizations such as Amphibious Warfare Headquarters, the Joint Intelligence Bureau, the Joint Services Staff College, and the Imperial Defence College.

Co-operation between the fighting Services is illustrated in the system of staff training for selected officers of the Navy, Army and Air Force. After about 10 years' service, they are sent to separate staff colleges at Greenwich (London), Camberley (Surrey), and Bracknell, Berkshire (or Andover, Hampshire), respectively, where they learn the elements of staff work. At a later stage in their careers selected officers from the three Services go to the Joint Services Staff College at Chesham, where they live and work together and where particular attention is paid to the inter-Service aspects of staff work. This College caters for about a hundred and fifty students a year from the Navy, Army and Air Force, the Civil Service and the Commonwealth. Finally, there is the Imperial Defence College in London, which caters for a few specially selected more senior officers from the Services, the Civil Service and the Commonwealth.

Supply

The Ministry of Supply is responsible for the procurement of all equipment used by the Army and Air Force. It is also responsible for the procurement of aircraft, some guns and ammunition, guided weapons and a certain amount of miscellaneous equipment used by the Royal Navy. The Admiralty is responsible for the procurement of ships and associated equipment.

Production for the Services is carried out to a great extent by private industry on a contract basis, but also by the Royal Ordnance Factories, the Royal Dockyards and other establishments operated by the Ministry of Supply and the Admiralty. At the beginning of the second world war three Royal Ordnance Factories were in operation; at its peak there were 44. There are now 24. The Ministry of Supply's research establishments carry out research and development on behalf of the War Office and Air Ministry, and also for certain aspects of Admiralty requirements, in particular naval aviation. The Admiralty has its own research establishments which carry out research on ships and maritime equipment. Current production and development programmes are summarized later in this chapter in the sections dealing with the three Services individually.

Some military equipment, including aircraft and radio and radar equipment, is being supplied to Britain by the United States under the Mutual Security Programme. Some of this equipment is manufactured in the United Kingdom and financed by the United States under the 'offshore procurement' programme. Under this programme the United Kingdom is also making equipment for other NATO countries in Europe. The total value of such contracts placed in the United Kingdom to the end of 1954 was $650 million.

Nuclear Weapons

During the second world war, British research workers played an essential part in the allied project that led to the production of the first atomic bombs in the United States. After the war, owing to the security restrictions imposed by the United States on the exchange of atomic information, the United Kingdom decided to undertake independently the development and construction of atomic weapons. The first test explosion of a British atomic weapon was carried out in October 1952 in the Monte Bello Islands off the north-west coast of Australia, in close co-operation with the Australian Government; further tests took place a year later near the Woomera Rocket Range in Central Australia. In February 1954 it was announced that deliveries of atomic weapons to the armed forces had begun. By agreement with the Australian Government a proving ground is being established at Maralinga in the South Australian Desert.

In February 1955 the Government announced its intention to begin the development and production of thermo-nuclear weapons.

Production of and research on nuclear warheads to meet Service requirements are carried out by the Atomic Energy Authority (see p. 379) under contract from the Ministry of Supply, which is responsible for the completed weapons.

Guided Missiles

In the development of guided weapons, the main effort is being devoted to providing defence against bombers flying at high speed and at great altitudes. Development of air-to-air guided weapons to be fitted in manned fighter aircraft has reached an advanced stage, and good progress is being made in the development of surface-to-air missiles for use from the land and from ships. Work is in hand on the development of a ballistic rocket which may eventually supplement the manned bomber.

Testing is carried out both in the United Kingdom and at the Woomera range set up in Australia under the Joint United Kingdom/Australia Guided Weapon Project. There is close collaboration with the United States in the exchange of information and of visits by technical personnel. The United Kingdom has co-operated with the United States in the provision of guided missile testing stations in the West Indies.

THE ROYAL NAVY

The Royal Navy is governed by the Board of Admiralty. The First Lord of the Admiralty is the minister responsible to Parliament for the Navy. The other ten members of the Board are the Parliamentary and Financial Secretary; the Civil Lord; the Permanent Secretary, who is a civil servant and responsible for the general conduct of Admiralty business; the First Sea Lord and Chief of Naval Staff, who is the professional head of the Service and is a member of the Chiefs of Staff Committee; the Second Sea Lord and Chief of Personnel; the Third Sea Lord and Controller of the Navy, responsible for engineering, equipment, ordnance, and research; the Fourth Sea Lord and Chief of Supplies and Transport; the Fifth Sea Lord and Deputy Chief of Naval Staff (Air), responsible for air matters; the Vice-Chief of Naval Staff, responsible for operations, intelligence and plans; and the Deputy Chief of Naval Staff, responsible for special subjects.

Policy and Production

The functions of the Navy in the event of a major war would be: (*a*) to search out and destroy enemy ships and to prevent the enemy from using the seas for his own purposes; (*b*) to protect communications and to safeguard the supply lines; and (*c*) to provide direct air support for operations ashore and afloat in areas where it cannot readily be given by shore-based aircraft. In place of the concentrated main fleets of the past, battle groups of carriers operating the latest aircraft, guided missile ships and their escorts are needed to provide mobile offensive forces.

When rearmament started in 1950, the Admiralty gave particular attention to the need to build up anti-submarine and minesweeping forces, and to expand the Fleet Air Arm; and priority was given to construction work which would show quick results. The building of carriers and 'Daring' Class escort ships already in hand was therefore pressed forward as quickly as possible, and a large programme of modernization and conversion of ships and a much increased building programme were started.

By 1955 a strong force of new or modernized carriers was being built up, equipped with the angled deck, the steam catapult and the mirror landing device (all British inventions); eight 'Daring' Class ships had joined the Fleet; a large number of destroyers had been converted to function as fast frigates or otherwise modernized, and the first of a group of new frigates under construction was well advanced; over 150 new minesweepers had been completed and another 100 were under construction; much progress had been made with design of submarines, and new methods of propulsion had added greatly to their range and speed. Development of the guided missile, and its associated equipment, had advanced sufficiently to enable the Admiralty to include in its 1955–56 programme plans for the construction of guided weapon ships to replace the ageing cruiser fleet. The introduction of this new armament is expected to effect revolutionary changes in naval warfare. The first operational application of the guided missile will be a purely ship-to-air weapon; but later a system will be developed capable of operating a ship-to-ship weapon from the same equipment. To help bridge the gap before the guided weapon ships come into service, three 'Tiger' Class cruisers with modern gun armament are being completed and the best of the cruisers now in commission are being modernized. The 1955–56 Estimates also included provision for further new escort ships and coastal minesweepers, and steps are being taken to improve the standard of maintenance of the Reserve Fleet.

Strength of the Fleet

During 1955 the fighting ships of the Fleet were deployed as follows:

1. *Ships in the operational Fleet, or preparing for service with it:* 1 fast battleship[1], 2 fleet carriers, 2 light fleet carriers, 9 cruisers, 7 'Darings', 22 destroyers, 30 frigates, 1 fast minelayer, 43 submarines, 32 minesweepers, 26 coastal craft, and 7 landing vessels.
2. *Ships engaged in trials and training:* 4 light fleet carriers, 1 cruiser, 3 destroyers, 22 frigates, 23 minesweepers, 4 coastal craft, and 1 tank landing ship.
3. *Ships in course of construction:* 4 light fleet carriers, 3 cruisers, 26 frigates, 2 submarines (excluding those not yet launched), 101 minesweepers, and 10 coastal craft.
4. *Ships at present in reserve or undergoing modernization or refit, etc.:* 4 fast battleships, 5 fleet carriers, 2 light fleet carriers, 14 cruisers, 1 'Daring', 57 destroyers, 115 frigates, 2 fast minelayers, 14 submarines, 165 minesweepers, 42 coastal craft, and 58 tank landing vessels.

The Navy also operates some 350 oil tankers, supply ships, tugs and other auxiliary support craft.

Fleet Air Arm

The *Sea Hawk* and *Sea Venom* provide the day and all-weather fighter strength of the Fleet Air Arm, but orders have been placed for their successors the *N.*113 and *D.H.*110 which will have a greatly improved performance.

The anti-submarine turbo-prop *Gannet* came into service in 1954. A strike aircraft to replace the *Wyvern* is being planned; it will be capable of carrying an atomic bomb, and will have a far greater range and speed than any previous naval strike aircraft.

A Naval Helicopter Squadron equipped with *Sikorsky S.*55 helicopters has been in operational service in Malaya since 1953. An anti-submarine twin-rotor helicopter, the *Bristol* 191, is being developed.

Research and Development

Increased provision was made in the 1955–56 Estimates for basic research.

Among recent developments, there have been advances with anti-submarine detectors and locators; techniques for the detection and location of mines, and methods of sweeping them, have improved; and performance of new torpedoes, both in range and accuracy, shows great promise. In radio communications, research on very short waves may enable reliable communications to be maintained over much greater distances than had been thought possible. The Admiralty is the agent for all the Services in valve development for use in radar communications and guided missiles. Increasingly close liaison is maintained between naval scientists and their opposite numbers in the universities, in other Commonwealth countries, and in NATO.

Stations

The Navy's commands in home waters are Portsmouth, Devonport, Chatham, Rosyth in Scotland, and the Commander-in-Chief Home Fleet. Abroad there are the Mediterranean, East Indies, Far East, America and West Indies, and South Atlantic stations. The Mediterranean Station, with headquarters in Malta and with Gibraltar as a secondary base, covers the Red Sea (but not Aden) as well as the Mediterranean. The East Indies Station is practically co-extensive with the Indian

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[1] In September 1955 it was announced that this battleship, the *Vanguard*, was to go into reserve.

Ocean. By agreement with Ceylon, the Navy has a base and dockyard facilities at Trincomalee which are maintained by the United Kingdom. The Far East Station, formerly known as the China Station, extends eastwards from Singapore. Hong Kong remains the operational base but the headquarters have now been moved to Singapore. Largest in area of the stations is the America and West Indies Station, with headquarters at Bermuda, where there is a small dockyard now in a care and maintenance condition. From this station, ships operate in both the North and South Atlantic and in the Eastern Pacific, except where the Royal Canadian Navy operates from Halifax and Esquimalt (Vancouver Island). By agreement with the Union of South Africa, ships on the South Atlantic Station are based on Simonstown Dockyard, at the Cape of Good Hope. The navies of other Commonwealth nations operate in their respective areas from their home bases, the use of which is made available to the Royal Navy at the discretion of their Governments.

Portsmouth, Devonport, Chatham, Rosyth, Gibraltar, Malta, Singapore, and Hong Kong are also dockyards for the Navy with major supply and repair facilities. There are also a number of naval air stations at home and abroad.

A programme to modernize the Royal Dockyards in the United Kingdom, and to reconstruct and extend those damaged in the second world war, was put in hand in 1954–55 and is expected to extend over four or five years.

Recruitment and Training

The main entry for Naval officers is the cadet-entry. Cadetships are available to young men between the ages of approximately 17 and 19, and those selected, except Electrical Branch cadets, spend two years at the Britannia Royal Naval College, Dartmouth, after which they join the Fleet as Acting Sub-Lieutenants. Electrical Branch cadets spend one year at Dartmouth and then take a three-year course up to honours degree standard in electrical engineering at a university.

Short service commissions as pilot or observer in the Fleet Air Arm are open to young men between the ages of 17 and 26, and those accepted have opportunities of obtaining a permanent commission. Doctors, dental surgeons and instructor officers all enter on short service commissions after completing their professional training, and permanent commissions are awarded to them according to vacancies available.

Commissions in the Royal Marines are gained through the same examination as are cadetships in the Royal Navy, and successful candidates are given a special training, part naval and part military, which lasts three years.

The age limits for entry as a rating in the Navy are as follows: seaman branch, 15¼ to 23; artificer apprentices, 15 to 17; communications, engineering, naval airman, electrical, and supply and secretariat branches, 16¼ to 23; sick berth branch, 17½ to 23; artificers (trained) 19½ to 28. Age limits for entry into the ranks of the Royal Marines are: marines, 17 to 23; boy buglers, 15 to 15½; boy or recruit musicians, 14 to 18; musicians (trained), 17½ to 23. Women may enter the Women's Royal Naval Service between the ages of 18 and 28 and most WRNS officers are selected from serving ratings.

On entry, all Naval and WRNS ratings and Royal Marines other ranks are given a basic training at the appropriate school or shore establishment and are given 'refresher' courses at regular intervals during their time in the Service.

Royal Marines

The Corps of Royal Marines is a body of trained men for service on sea or land. Its official existence dates from 1664. The present-day functions of the Corps are:

1. To supply detachments for HM ships, which (*a*) man a proportion of the ships' armament, (*b*) provide emergency landing parties, and (*c*) carry out guard duties and the like.

2. To provide personnel for the Commando Brigade.
3. To provide crews for minor landing craft and certain other parties required for amphibious assault.

Women's Royal Naval Service

The WRNS is now a permanent and integral part of the Naval Service. It has its own disciplinary code. The estimated average strength in 1955–56 is 4,600.

Reserve and Auxiliary Forces

The *Royal Fleet Reserve* (RFR) consists of men who have taken their discharge from the regular service and who, either voluntarily or as part of their contract, join this reserve for a minimum period of five years.

The *Royal Naval Reserve* (RNR) reopened its ranks in February 1950 to officers and men of the Merchant Navy who volunteer to serve in the Royal Navy in war. The qualification for service in the RNR is that the candidate should be following the sea as a profession.

The *Royal Naval Volunteer Reserve* (RNVR), composed of officers and men who voluntarily train in peace time, is organized in 12 divisions which provide training for general naval service. There are also five RNVR Air Divisions. The Royal Naval Volunteer (Wireless) Reserve consists of specialist officers, wireless operators and radio electricians. The Royal Marines Forces Volunteer Reserve (RMFVR) and Women's Royal Naval Volunteer Reserve (WRNVR) are the Royal Marines' and WRNS's counterparts of the RNVR.

Behind these fully trained reserves, available to meet immediate needs on mobilization, is the vast background of officers and men with past war-time and peace-time service in the Royal Navy, now either in retirement or in civil occupations.

All those still fit for service are liable to recall on the outbreak of war and, after refresher training where necessary, would help to provide the additional trained manpower required to meet the war-time expansion of the Navy as a whole.

Royal Naval Minewatching Service

The RNMWS, a civilian organization formed in January 1952 and composed of men and women volunteers, is responsible in time of war for manning posts around the coast and overlooking the main navigable waterways. Its object would be to spot mines dropped from aircraft, and to plot and report their positions. Its strength on 1st October 1955 was 4,300.

Sea Cadet Corps

The Sea Cadet Corps is the oldest pre-Service movement for boys in Britain, its origin dating from the time of the Crimean War in the mid-nineteenth century. As an organization it was sponsored in 1899 by the Navy League (the objects of which are the promotion of a strong Navy and instruction in the history and traditions of the sea). The aim of the Sea Cadet Corps is to give technical training to, and instil naval tradition in, boys under the age of 18 who intend to serve in the Royal and Merchant Navies and also to those sea-minded boys who do not intend to follow a sea career but will, given this knowledge, form a valuable reserve for the Navy. It also aims to provide for the social and educational welfare of the cadets and to develop character and good citizenship. The estimated strength in 1955–56 is about 2,000 cadet officers, 900 chief petty officer instructors and 20,000 cadets.

THE ARMY

The control of the Army is vested in the Army Council, of which the Secretary of State for War is president. The other civilian members of the Council are the Parliamentary Under-Secretary of State for War and Financial Secretary of the War Office, who performs parliamentary duties, and the Permanent Under-Secretary of State for War, a civil servant who acts as secretary to the Council. The military members of the Army Council comprise the Chief of the Imperial General Staff, who is also a member of the Chiefs of Staff Committee; the Vice-Chief of the Imperial General Staff, who is responsible for strategic policy and plans, operations and intelligence, and is also a member of the Vice-Chiefs of Staff Committee; the Deputy Chief of the Imperial General Staff, responsible for war organization, equipment, weapons and training; the Adjutant-General to the Forces, responsible for manpower, personnel, discipline, medical services, welfare, education, and the women's services; and the Quartermaster-General to the Forces, responsible for supplies, transport, and works services.

Disposition

In 1954 the heavy burden of the Army's commitments all over the world was for the first time for years slightly eased. The withdrawal of Allied troops from Trieste and Austria, the reduction in the size of the British Commonwealth Division in Korea and the redeployment of the British forces in the Middle East, following the agreement with Egypt on withdrawal from the Canal Zone, released some troops for use in building up a strategic reserve within the United Kingdom.

Nevertheless commitments remain heavy. As a contribution to the defence forces of NATO and the Western European Union, the United Kingdom has undertaken, subject to certain understandings, to maintain its forces on the mainland of Europe at their existing strength. The British Army of the Rhine, which forms part of the NATO Northern Army Group, consists of four divisions, three of them armoured. In the Federation of Malaya, since 1948 United Kingdom forces have been heavily engaged—together with Malayan, Gurkha and Colonial troops—in operations against Communist terrorists. In 1955 arrangements were made for forces from Australia and New Zealand to join the United Kingdom and other forces in operation in Malaya. In Kenya, security forces have been making such steady progress in overcoming the threat to order from Mau Mau terrorists that in the autumn of 1955 it became possible to reduce their strength from 11 to 8 battalions (3 United Kingdom and 5 African). The Middle East Land Forces, which include one armoured division, are now stationed mainly in Cyprus and Libya. In addition, there are garrisons in Gibraltar, Malta, Akaba, Hong Kong and the West Indies.

Equipment

During the first years of the rearmament programme, attention was concentrated on the production of tanks and other armoured vehicles, infantry weapons, and engineers' and signal equipment.

The Army is now fully equipped with a range of new wheeled-vehicles and with the *Centurion* tank, which has also been supplied to allied countries. The heavy gun tank, the *Conqueror*, is now undergoing Service trials. Complementary to the *Centurion*, it is larger and more powerfully armed. Its suspension is of a new and improved design.

Other weapons taking an important place in the current production programme include the L.70 light anti-aircraft gun, the FN self-loading rifle on which large-scale field trials are being carried out, and a new sub-machine gun. A comprehensive programme of wireless re-equipment is in hand, and a new range of bridging and ferrying equipment is being introduced into service.

Provision is being made for the introduction of surface-to-surface guided weapons. In 1955 groups of Army instructors began to receive training in the United States in the use of the Corporal guided missile.

With the development of nuclear weapons, much attention is being given to the problem of increasing mobility without loss of fighting capacity. Studies and experiments are being carried out, in consultation with other Commonwealth and NATO countries, with a view to simplifying weapon systems, reducing the number and variety of weapons and speeding up methods of supply.

Organization of the Regular Army

The Army is organized in twenty-five corps or arms, which include the Royal Armoured Corps (the historic Cavalry Regiments—Dragoons, Hussars, Lancers—and the Royal Tank Regiment), Artillery, Engineers, Signals, Infantry, and various other corps such as the Royal Army Service Corps, the Royal Army Ordnance Corps, and the Royal Army Medical Corps. The Infantry has been reorganized since 1946 in the following groups:

1. The Grenadier Guards, The Coldstream Guards, The Scots Guards, The Irish Guards, The Welsh Guards.
2. The Royal Scots, The Royal Scots Fusiliers, The King's Own Scottish Borderers, The Cameronians.
3. The Queen's Royal Regiment, The Buffs, The Royal Fusiliers, The East Surrey Regiment, The Royal Sussex Regiment, The Queen's Own Royal West Kent Regiment, The Middlesex Regiment.
4. The King's Own Royal Regiment, The King's Regiment, The Lancashire Fusiliers, The East Lancashire Regiment, The Border Regiment, The South Lancashire Regiment, The Loyal Regiment, The Manchester Regiment.
5. The Royal Northumberland Fusiliers, The West Yorkshire Regiment, The East Yorkshire Regiment, The Green Howards, The Duke of Wellington's Regiment, The York and Lancaster Regiment.
6. The Royal Warwickshire Regiment, The Royal Lincolnshire Regiment, The Royal Leicestershire Regiment, The Sherwood Foresters.
7. The Royal Norfolk Regiment, The Suffolk Regiment, The Bedfordshire and Hertfordshire Regiment, The Essex Regiment, The Northamptonshire Regiment.
8. The Devonshire Regiment, The Gloucestershire Regiment, The Royal Hampshire Regiment, The Dorset Regiment, The Royal Berkshire Regiment, The Wiltshire Regiment.
9. The Somerset Light Infantry, The Duke of Cornwall's Light Infantry, The Oxfordshire and Buckinghamshire Light Infantry, The King's Own Yorkshire Light Infantry, The King's Shropshire Light Infantry, The Durham Light Infantry.
10. The Cheshire Regiment, The Worcestershire Regiment, The South Staffordshire Regiment, The North Staffordshire Regiment.
11. The Royal Welch Fusiliers, The South Wales Borderers, The Welch Regiment.
12. The Royal Inniskilling Fusiliers, The Royal Ulster Rifles, The Royal Irish Fusiliers.

13. The Black Watch, The Highland Light Infantry, The Seaforth Highlanders, The Gordon Highlanders, The Cameron Highlanders, The Argyll and Sutherland Highlanders.
14. The King's Royal Rifle Corps, The Rifle Brigade.

Within the United Kingdom, the Army is organized into commands and districts as follows: Scottish, Northern, Southern, Eastern, Western, London District, and Northern Ireland District. There are three chief commands overseas: Middle East Land Forces, Far East Land Forces, and British Army of the Rhine.

Recruitment and Training

The normal method of entry for a regular commission in the Army is through the Royal Military Academy, Sandhurst (Camberley, Surrey), where selected cadets undergo a course lasting two years before receiving their commissions. This course gives a general military and academic background for all arms and services, and young officers on leaving Sandhurst then attend special Arm Courses to prepare them for their own arm, some attending Technical Courses at the Royal Military College of Science (Shrivenham, Wiltshire) and at Cambridge University.

Cadets may enter Sandhurst direct from school or after they have enlisted in the Army or been called up for National Service.

The War Office also maintains a boarding school, known as Welbeck College, at Worksop, Nottinghamshire, where 150 boys are educated for two years between the ages of 16 and 18 years. These boys pass into Sandhurst at the end of their school course and are normally commissioned into the Royal Corps of Signals, Royal Army Ordnance Corps or Corps of Royal Electrical and Mechanical Engineers. A few may be commissioned into the Royal Engineers.

University graduates may be accepted for direct regular commissions.

A small number of schoolboys are selected to take engineering or science degrees at the Royal Military College of Science as National Service officers and thereafter to be granted regular commissions.

Regular commissions may also be granted to other officers already serving on National Service commissions or on Short Service commissions.

Candidates for National Service commissions are trained at the Officer Cadet Schools, Eaton Hall, Chester, or Mons Barracks, Aldershot, depending on the arm or service for which they are selected. At these schools the course, which consists of purely military training, lasts for four months.

Men wishing to enlist in the ranks must be British subjects between the ages of 17½ and 30 years, of good character, medically fit and able to pass an intelligence test. Men with certain trade qualifications may be accepted up to the age of 33 years.

The terms of service are for either three years with the Active Army and four years in the Reserve or 22 years with the Active Army with the option of terminating the engagement at the end of each period of three years.

Men may choose the corps in which they wish to serve and their wishes regarding trade training are met as far as possible.

On entry into the Army, other ranks are trained at the Depots or with the Training Units of the arms or services for which they have been selected. This initial training consists of six weeks' basic military training common to all arms and services, and a further period of training which is special to the arm or service concerned. This latter training varies in length of time, depending on the arm and service, e.g., Infantry, four weeks; Royal Signals electronic technician, 22 weeks.

A boy can enlist in the Army as an Army apprentice tradesman, between the ages of 15 and 17; a Regimental boy, between the ages of 15 and 16½; and a drummer, band boy, tailor or piper, between the ages of 15 and 17½.

After the age of 18 years, boys who have enlisted as Army apprentice tradesmen and regimental boys in the Royal Army Service Corps, the Royal Army Ordnance Corps and the Corps of Royal Electrical and Mechanical Engineers serve eight years with the Active Army and four years in the Reserve. All other boys serve six years in the Active Army and three years in the Reserve.

The object of the Regimental Boys Units is to produce long-term Regular Warrant Officers and Senior Non-Commissioned Officers, and that of the Apprentice Schools is to produce WO and NCO tradesmen for the Regular Army, some of whom may become specialist Commissioned Officers.

Women may enlist into the Queen Alexandra's Royal Army Nursing Corps or into the Women's Royal Army Corps between the ages of 17½ and 33 years. The terms of service are the same as for men except that there is no liability for reserve service.

Women's Royal Army Corps

The WRAC, which has replaced the ATS, is a corps in the Regular Army, the officers and other ranks of which, with minor exceptions and modifications, are subject to the Army Act and Queen's Regulations to the same extent as members of any other corps. Its strength in January 1955 was about 6,400.

Queen Alexandra's Royal Army Nursing Corps

The QARANC, which has replaced the QAIMNS, is a corps of the Regular Army and provides the nursing services within the Army. It numbers just under 2,000.

Territorial Army[1]

The Territorial Army, which was reconstituted in 1947, now forms part of the national Army. The male section of the Territorial Army is organized in some 1,400 separate units with a total strength of some 300,000. It is composed of a small whole-time regular cadre and three other elements:

1. men who have no legal liability for service but who voluntarily engage and re-engage for varying periods (volunteers);
2. National Service men who accept additional obligations by undertaking a normal voluntary engagement during their statutory period of part-time service (National Service volunteers); and
3. men who are simply carrying out their statutory obligation of three and a half years' part-time service with the Territorial Army (National Service men).

In 1955 the male strength was made up of some 65,000 volunteers, 55,000 National Service volunteers and 180,000 National Service men. In addition, the Queen Alexandra's Royal Army Nursing Corps (TA) and the Women's Royal Army Corps (TA), both of which are recruited on a purely voluntary basis, numbered some 9,000. All these members of the Territorial Army are liable to be called out for permanent service in the United Kingdom in the event of actual or apprehended attack, and, on proclamation, for permanent service anywhere in the world.

While the military authorities are responsible for policy, training and discipline, local administration is largely carried out by county Territorial and Auxiliary Forces Associations.

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[1] Government statements have indicated that changes are to be made in the organization of the Territorial Army and the Army Emergency Reserve.

From the outbreak of war the Regular and Territorial Armies would be integrated. In the United Kingdom the combined resources of Regular and Territorial units would be used together to meet initial operational requirements and to provide the framework of subsequent expansion. The Territorial Army would also play an important part in support of the civil defence organization in the event of air attack with nuclear weapons (see p. 117).

Army Emergency Reserve

The object of the Army Emergency Reserve is, broadly, to provide the technical and other specialized units and individuals needed to form the essential backing to the fighting formations of the Regular Army and of the Territorial Army immediately on mobilization. In structure its units are similar to those of the Territorial Army in that they consist of basic elements of volunteers to provide the senior officers and NCOs, with a complement of National Service men doing their part-time service; but the units are raised on a trade or 'skill' basis and not territorially. Its strength in March 1955 was 164,500.

Combined Cadet Force and Army Cadet Force

The CCF and ACF were both founded some 90 years ago. Their object is to provide pre-Service training for boys between the ages of 14 and 18 and, in the ACF, the encouragement of club life, camps, etc. In the 1955–56 Estimates provision is made for about 6,000 officers and 123,000 cadets, of whom about three-fifths are in the Combined Cadet Force, which is organized in schools.

The Home Guard[1]

The Home Guard, instituted during the second world war, was re-established on a voluntary and limited basis by the Home Guard Act, 1951. In September 1955 it had a total strength of 78,000 (including 41,700 on the reserve roll). The tasks of the Home Guard in war time would be concerned with home defence.

The force is open to men between 18 and 65, unless they are members of the Regular forces, or of certain reserves, or of the Territorial Army. Women are eligible for service as clerks, telephone operators, storewomen, medical orderlies, cooks and canteen orderlies, and drivers. Service is for two years and may be extended for one year at a time. Service is part-time in times of peace, but members of the Home Guard are required to give whole-time service in the United Kingdom if the unit to which they belong is mustered to defend its area. When on duty and mustered, members of the Home Guard will be subject to military law, but no member will be tried under military law for an offence which could come within the civil code.

The Home Guard was started as the Local Defence Volunteers in 1940 and was afterwards named the Home Guard on the suggestion of the then Prime Minister, Mr. (now Sir) Winston Churchill. In the course of the war the organization reached a strength of over 1¾ million. It held its 'stand-down' parade in December 1944.

THE ROYAL AIR FORCE

The Royal Air Force is administered by the Air Council (a body similar in organization to the Army Council). The Council is composed of nine members, including the Secretary of State for Air who is president. Of these, the Parliamentary Under-Secretary for Air acts as vice-president and performs parliamentary duties; and the Permanent Under-Secretary of State for Air, who is a civil servant, acts as secretary. The military members of the Council include the Chief of the Air Staff, who is responsible for strategic policy and the fighting efficiency of the RAF and is also a member of the Chiefs of Staff Committee; the Vice-Chief of the Air Staff, responsible for inter-Service policy, operations, intelligence, liaison with other air forces, standardization and ground defence; the Deputy Chief of the Air Staff, responsible for the preparedness for war of the RAF, for command, staff and air training, and for policy regarding future aircraft and weapons; the Air Member for Personnel; the Air Member for Supply and Organization; and the Controller of Supplies (Air) of the Ministry of Supply.

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[1] In December 1955 it was announced that the Home Guard would be placed on a reserve basis.

Commands

The Royal Air Force is organized into Commands administered by the Air Council:

At Home: Bomber, Fighter, Coastal, Transport, Flying Training, Technical Training, Maintenance and Home (formerly known as Reserve) Commands.

Overseas: Second Tactical Air Force (stationed in Germany as part of Britain's contribution to the NATO forces), the Middle East Air Force (headquarters in Cyprus) and the Far East Air Force (headquarters at Changi, Singapore).

Commands are subdivided into groups and wings, a certain number of squadrons being allotted to each group or wing. Squadrons are subdivided into flights.

Equipment and Works

The main task now before the RAF is to build up the V-bomber force (the three four-engined medium-range jet bombers *Valiant*, *Victor*, and *Vulcan*), with its nuclear potential, to a state of high efficiency and preparedness. The first V-bombers came into service during 1955. The twin-engined *Canberra* jet bomber, which is in service in large numbers, has proved outstandingly successful.

Expansion of Fighter Command has been completed, but the proportion of all-weather fighters will grow. All-weather squadrons were expected to receive their first *Javelins* in 1955–56. Other squadrons are being re-equipped with *Venom* night fighters and delivery of *Hunters* has proceeded steadily. Orders have been placed for a development batch of the single-seater *Gnat* lightweight fighter, which, the makers claim, can be constructed far more quickly and cheaply than a standard fighter. Development of the *P.1* day-and-night interceptor, a prototype of which has flown faster than sound in level flight and while climbing, is being pressed forward. Work is in hand on the development of supersonic interceptor fighters powered by turbo-jets and rocket motors in combination. A start has been made on production of air-to-air guided weapons.

The system of control and reporting, which has been built into a highly efficient organization, is being further improved and more closely linked with the radar systems of Continental allies. A new type of radar, a conspicuous advance on earlier types, has been developed. A reconstructed radar chain now covers the whole of the United Kingdom. Hundreds of new installations have been built, and vital parts of the system have been put deep underground and protected by massive thicknesses of concrete.

Coastal Command is being strengthened by the formation of special flights for short-range anti-submarine work, equipped with *Seamews*.

Transport Command is being re-equipped to provide increased mobility for the strategic reserves of both land and air forces. Orders have been placed for the *Comet II*, for use as a high-speed jet transport. This aircraft will be put into regular use on the service to the rocket range at Woomera, Australia. The first *Beverley* heavy transports were expected to be cleared for squadron service during 1955. Deliveries of helicopters, which have proved their value during operations in Malaya, are increasing, and a joint Army/RAF Helicopter Evaluation Unit has been formed.

During the last few years there has been a great deal of airfield development in the United Kingdom to provide for the operation of the V-bombers and the new fighters, and a major programme of airfields, depots and technical facilities has also been carried out for units of the United States Air Force stationed in Britain.

Recruitment and Training

The Royal Air Force College, Cranwell, Lincolnshire, trains cadets for permanent commissions as pilots and navigators, while technical cadets are trained at the Royal Air Force Technical College, Henlow, Bedfordshire. The training of some technical cadets includes a three-year honours degree course at a university. Royal Air Force Regiment cadets start at the Royal Air Force Regiment Depot at Catterick, Yorkshire, and then spend 18 months at the Royal Military Academy, Sandhurst (Camberley, Surrey).

It is the aim of the Air Council that all pilots and navigators shall be officers. Most of them enter on direct commissions. Officers with direct commissions have the choice of serving for eight or twelve years on the active list and going out with a gratuity, or of staying in the Service until they qualify for pension. Flying training lasts for up to 18 months. Most pilots are trained at the various flying schools in the United Kingdom, but navigators are trained in Canada.

Officers in ground branches are usually found from people in civil life, some of whom already hold professional qualifications, who enter the Royal Air Force on short service commissions. Short service officers may be selected for permanent commissions while in the Royal Air Force.

Airmen are recruited from the age of 17½ and may enlist for three, four, five, ten or twelve years in a wide variety of trades, for most of which they will be given training in the Service. After four years, they may apply for an engagement which will last until they are 55 years of age and earn them a pension when they have served for 22 years. Airmen may be promoted either as non-commissioned officers or as technicians, and there are opportunities for them to obtain commissions. Boys can come into the Service as apprentices or boy entrants and be trained in a trade.

Women's Royal Air Force

Women play an important part in the work of the Royal Air Force and of its reserve and auxiliary formations. The WRAF is a permanent and integral part of the Royal Air Force and its members train with and work alongside airmen in the same trades, serving not only in the United Kingdom but in Germany, the Middle East, and the Far East. The maximum strength in 1955–56 is estimated at 7,500.

Auxiliary and Reserve Forces

The *Royal Auxiliary Air Force* consists of units raised and maintained by Territorial and Auxiliary Forces Associations. It includes flying squadrons (fighter and air observation post), regiment squadrons and fighter control and radar reporting units. Each trains and operates as a self-contained unit. In addition, each flying squadron is linked with a regular fighter squadron so that pilots with the necessary experience shall have the opportunity to train on the latest high-performance aircraft.

The *Royal Air Force Volunteer Reserve* provides a pool of officers, airmen and airwomen, who, like the personnel of the Auxiliary Air Force, train on a part-time basis, both as individuals and units.

Part-time National Service men serve in the *Royal Air Force Reserve of Officers* and *Class H of the Air Force Reserve.*

Royal Observer Corps

Over 17,000 men and women from all walks of life form the Royal Observer Corps, a voluntary civilian organization, administered by Fighter Command, devoted to the specialized task of identifying and reporting the movements of aircraft. The corps originated in the first world war to report the movements of German aircraft and zeppelins over Great Britain and was officially established in 1925. Recently it has undertaken the additional duty of giving warning on radioactivity and measuring its extent in the event of air attack with nuclear weapons.

The Air Training Corps

The ATC is open to boys between the ages of 14 and 18. Like the other pre-Service formations, it seeks to inculcate citizenship as well as training for the RAF. In 1955–56 the Corps had an estimated strength of 3,600 officers, 850 warrant officers and 40,000 cadets.

HOME DEFENCE

The *Statement on Defence* 1955 emphasized the fact that against the thermonuclear attack of the future the best defence of the civil population is to try to ensure that it never happens. But financial and other resources must continue to be provided for a measure of insurance in the event of war. The new form of the threat to security calls for a complete overhaul of home defence plans, but it is immediately clear that much can and must be done to mitigate the effects of a thermonuclear attack if one should occur. The need for rescue, fire-fighting and welfare operations would be greater than ever. The presence of radioactivity would have to be detected and measured and necessary warning given. The first call would have to be met by the civilian services on the spot, but these, though vital, might not be sufficient, and measures have been taken to provide help by mobile columns based outside probable target areas and manned by members of the armed forces. Further support would be available from all the armed forces in the country at the time, whether regular or reserve, which were not immediately required for combat operations.

The Minister of Defence is charged with planning the part which the armed forces would play in home defence, and with co-ordinating the plans of the military authorities with those of the civil authorities.

Organization of Civil Defence

Civil defence planning in the United Kingdom is the responsibility of a number of ministers each of whom undertakes the duties which, in war time, would represent a natural extension of his peace-time functions. As the development of effective civil defence services involves much detailed planning at local level, the central Government has enlisted the assistance of local government authorities, of industry and of public bodies of many kinds, including voluntary organizations such as the Voluntary Aid Societies and Women's Voluntary Services.

Under the Civil Defence Act, 1948, the Home Secretary is responsible for co-ordinating all the Government's civil defence preparations. The Secretary of State for Scotland is responsible for all civil defence matters in Scotland.

In England and Wales, the Home Secretary is responsible for the civil defence activities of the police and fire services and he administers the Civil Defence Corps and the Industrial Civil Defence Service as well as such matters as war-time lighting restrictions, air-raid shelter policy and the civil air-raid warning system. The Civil Defence Department of the Home Office is under the charge of a Director-General of Civil Defence, appointed by the Home Secretary. Other Government Departments have direct responsibility for the civil defence applications of the services which they control; for example, the Ministry of Health is responsible for the hospital and first aid services, and the Post Office for telecommunications.

In Scotland, the Scottish Home Department deals with questions corresponding to those dealt with by the Home Office in England and Wales, and the Department of Health for Scotland is responsible for such matters as the hospital and first aid services.

In Northern Ireland, the Civil Defence (Northern Ireland) Act, 1950, places responsibility for civil defence matters on the Ministry of Home Affairs, which may arrange for other Departments to undertake some functions on its behalf.

The co-ordination of civil defence planning in Great Britain necessarily involves much work by interdepartmental committees on which all Departments with civil defence responsibilities in Great Britain are represented, in order that plans and programmes may be constantly reviewed to take account of changes in the scale and nature of possible attacks.

For purposes of regional co-ordination, England and Wales are divided into eleven Civil Defence Regions in charge of Regional Civil Defence Officers appointed by the Home Office, whose duties include liaison with the armed forces and the planning of combined exercises. There is no corresponding regional organization in Scotland.

The Civil Defence Formations

To provide the personnel required in war for civil defence tasks, the following formations, in which in peace time only part-time service is required, are raised by voluntary recruitment of civilians, both men and women:

1. The Civil Defence Corps, which was created by the Secretary of State's Warrant in May 1949, to assist local and other authorities to carry out their civil defence functions.
2. The Industrial Civil Defence Service, which comprises civil defence units formed in industrial and commercial premises.
3. The Auxiliary Fire Service, to reinforce the fire services maintained by local authorities under the Fire Services Act, 1947. (The Fire Service would become a national organization in war.)
4. The National Hospital Service Reserve, limited at present to trained nurses and persons willing to be trained as nursing auxiliaries to reinforce the National Hospital Services. (In Scotland there is also an Ambulance Section to provide the additional manpower for the war-time operation of the Scottish Ambulance Service.)
5. The Special Constabulary, to reinforce the police forces in all police functions. (All police officers receive training in civil defence.)

The Civil Defence Corps is recruited and organized by certain local authorities (mainly the councils of counties and county boroughs, or large burghs in Scotland) in local divisions. The local divisions are subdivided into five sections[1] as follows:

Headquarters:	control of civil defence operations, communications, reconnaissance (including the identification of toxic agents).
Wardens:	guidance to the public, reporting the effects of air attack, organization of street and village parties, movement of the homeless, supplementary air-raid warnings.
Rescue:	rescue of trapped persons.
Ambulance and Casualty Collecting:	the manning of ambulances, stretcher bearing and first aid.
Welfare:	escort and welfare of homeless and evacuees, billeting, rest centres, supervision and welfare of public in shelters, emergency cooking and feeding, public information centres.

Subject to restrictions regarding age and obligation to serve in the armed forces, recruits for all formations are drawn from men and women who are willing to serve as long as they are able and who will undertake to train approximately five hours each month. They are not paid, but reasonable out-of-pocket expenses are reimbursed.

Strengths in Great Britain at 31st March 1955 were:

1. Civil Defence Corps	358,365
2. Industrial Civil Defence Service (at 30th November 1954)	175,000
3. Auxiliary Fire Service	21,048
4. National Hospital Service Reserve	49,295
5. Special Constabulary (recruited since November 1949) . .	43,592

Training

Members of the Civil Defence Corps are required to undertake the training necessary to enable them to carry out the duties of an ordinary member of one of the sections of the Corps. This training is known as 'standard training'. When a volunteer has completed this stage, he may, if he wishes, and is considered suitable, be given further training—known as 'advanced training'—either to qualify him for more responsible duties or to enable him to carry out some of the other tasks of his section. All members of the Corps who have completed standard training, or any advanced training for which they volunteered, are required to attend for about six hours refresher training each year and to take part in exercises.

Civil defence instructors (except instructors in first aid) are trained either at one of three central training schools or locally, under arrangements made by local authorities in accordance with directions given by the Home Office or Scottish Home Department. Courses and studies for senior officials concerned with civil defence are held at the Civil Defence Staff College at Sunningdale, Berkshire.

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[1] Four in Scotland, where there is no Ambulance and Casualty Collecting section, ambulance services being provided by the Hospital Service, and casualty collecting being a warden duty. In Northern Ireland the Civil Defence Corps is organized directly by the Ministry of Home Affairs and not by the local authorities. As in Scotland it consists of four sections only, the Ambulance Service being a part of the Hospital Service.

In June 1955 a Fire Service Tactical Training Centre was opened at Reigate, Surrey. Here experiments are conducted in the use of new emergency appliances and equipment, particularly in formations of mobile companies and columns, and subsequently brigade instructors will be given short courses in these subjects.

Role of the Armed Forces

The local civilian services would be supported, in the event of war, by all the formed and disciplined bodies of the armed forces available for home service. The Civil Defence (Armed Forces) Act, 1954, provided that the duties of the armed forces should include civil defence, and all members of the armed forces, including the Home Guard, are to receive training in elementary civil defence duties as part of their normal training.

The Commanders-in-Chief (United Kingdom) Committee, under the chairmanship of the Commander-in-Chief United Kingdom Land Forces, is responsible to the Chiefs of Staff for co-ordinating Service plans for home defence, including Service assistance to the civil authorities.

To provide the necessary link between the local civil defence forces and the armed forces, the Government has established a *Mobile Defence Corps* specially trained in, and equipped for, rescue, ambulance, and fire-fighting duties. Initially the aim is to build up during the next three or four years a force of 48 reserve battalions—made up of men from the Army and the RAF—each with a minimum strength of about 600.

Special Mobile Defence Corps rescue and fire training centres are being opened with the intention that about 10,000 men shall receive a month's whole-time training each year. On completion of their active service these men will be posted to reserve battalions as near as possible to their homes. They will carry out their 15 days' annual reserve training with their battalions. The first two rescue training centres, at Epsom, Surrey, and Millom, Cumberland, were taken over from the Home Office in April and August 1955 respectively, and training of Army instructors started during the summer, followed by further courses at Epsom for ex-Territorial Army volunteers. From October 1955 National Service men were received at Epsom and Millom for their month's course of training in rescue work.

The general responsibility for the Mobile Defence Corps rests with the War Office, but certain training depots and battalions are being manned by the RAF.

In addition certain RAF National Service reservists are being trained in fire-fighting so that in time of war the fire service (under central control) could expand rapidly. For this purpose one training centre was opened by the Home Office in July 1955 at Washington Hall, near Chorley, Lancashire, with accommodation to train about ten thousand reservists a year for their first period of basic training. A second training centre is being prepared for more advanced instruction.

IV. THE NATIONAL ECONOMY

BACKGROUND

The United Kingdom ranks about 75th in size among the countries of the world, with about 0·18 per cent of the world's land area. In population, with about 2 per cent of the world's inhabitants, it ranks ninth. In density of population it is fourth: of the major countries, only Japan, Belgium and the Netherlands are more crowded; and there are eleven times as many people to the square mile in the United Kingdom as in the United States. In world trade, it ranks second. It takes about a fifth of the world's exports of primary products, and provides about a fifth of its exports of manufactured goods.

The United Kingdom, from its own soil, provides only half of the food it needs; and—apart from coal and some low-grade iron ore—it has few natural resources; so it is the world's largest importer of wheat, for instance, and of meat, butter, fodder grains, citrus fruits, tea, and tobacco; also of wool, iron and steel scrap, and hard timber. In return, it is the world's largest exporter of ships and textiles, and the second largest exporter of machinery and transport equipment of all kinds. Few countries in the world have such a high proportion of the population living in towns (80 per cent) or such a small proportion of the working population engaged in agriculture (5 per cent).

The United Kingdom is also the central banker of the Sterling Area, an area with a quarter of the world's population. Many countries outside the sterling area use sterling in their international transactions, and it has been estimated that about half the world's trade is conducted in sterling. By its membership of the Payments Union of the Organization for European Economic Co-operation, the United Kingdom provides a payments link between the sterling area and the countries of Western Europe.

The short section on the national economy which follows gives a brief description of its development up to the second world war; an account of the losses suffered in the war; a short account of the main economic developments since the end of the war; and, finally, a set of tables from the National Income statistics illustrating the structure of the economy.

The Economy before 1939

During the nineteenth century Britain secured a leading position as world manufacturer, merchant, carrier, banker, and investor and so was able to support a rapidly increasing population at a rising standard of living. It was Britain's commerce in cotton goods, above all, which gave it the leading position in world trade; cotton cloth provided 40 per cent of its exports in 1851. It was in this period also that the country became so largely dependent on imports: it has been estimated[1] that retained imports, which were only 12 per cent of net national income at factor cost in 1820, rose to 28 per cent in 1870. (The 1954 figure was 26 per cent.)

The period from 1870 to 1890 was the high-water mark of British industrial expansion as compared with that of other countries. Between 1890 and 1914 growing industrial competition from Europe and North America began to make itself felt, but its effects on Britain's staple export industries, particularly cotton textiles and coal, were offset by the general rise in world trade, by the continued demand for British textiles from India and other eastern countries, and by the continued high level of oversea investment.

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[1] Prof. E. A. G. Robinson, *Economic Journal*, September 1954, p. 458.

The new problems confronting British industry and trade in the twentieth century became apparent after the first world war. Textiles from India and Japan, where labour costs were lower, established themselves firmly in the large eastern markets, to a great extent replacing the higher-priced and often higher quality British product. The extension of the world demand for coal was slowed down by the increasing use of oil, while coal from the new European mines competed severely with British coal.

In the old-established branches of the vehicles and engineering group of industries (e.g., locomotives, ships and textile machinery) world demand fell away after a brief post-war boom, and Britain failed at first to gain a compensating share of the expanding world trade in the new types of engineering products (e.g., cars and electrical goods). Most countries were tending towards self-sufficiency, and some sought deliberately to protect nascent and even established industries by sheltering them behind tariffs and (later) quotas and exchange restrictions.

Income from oversea investments and a substantial improvement in the terms of trade (the price of exports relative to the price of imports) cushioned the effect of a fall in the volume of exports, and imports remained high. The loss of export markets led, however, to a contraction of Britain's staple industries—coal, cotton, iron and steel, and the older branches of engineering. The result was heavy unemployment, the general rate of which averaged 14 per cent in the years 1921–39, reaching a peak of 22 per cent in 1932, when the slump in world trade was at its worst. In districts relying mainly on one of the staple industries, the rate was much higher.

After 1932 an improvement in the levels of production and employment took place, stimulated by an increase in home investment, by some revival in world trade and, after 1935, by the armament programme.

Effects of the Second World War

The second world war is estimated to have run down British domestic capital by about £3,000 million, through shipping losses, bomb damage, and arrears of industrial maintenance and replacements. It also resulted in a considerable alteration in Britain's financial and trading position, which may be summarized thus:

1. *Loss of oversea assets.* Over £1,000 million worth of oversea investments—including £428 million in North America—were sold to pay for war supplies. The income from these assets had paid for a substantial part of pre-war imports into the United Kingdom.
2. *New oversea debts.* New external debts, totalling £3,000 million, were accumulated.
3. *Terms of trade.* The price of imported raw materials rose sharply after the war, and by 1948 about one-fifth more goods had to be exported than in 1938 to bring in the same quantity of imports.
4. *Reduced exports.* By 1944, exports, curtailed as part of the war effort, had fallen to less than one-third of their 1938 volume.
5. *Smaller reserves.* The real value of the gold and dollar reserves was reduced to about half the pre-war level.
6. *World dollar shortage.* The physical destruction of the war led to an increased dependence on the part of Britain, the rest of the sterling area and many other countries on supplies of all kinds from North America. Dollar earnings by non-dollar countries were inadequate to pay for these supplies.

The Post-War Recovery

The Balance of Payments

The immediate need after the war was to increase exports; the need to do this was the greater because the terms of trade turned against the United Kingdom more or less continuously up to 1951. While this rebuilding of trade was going on, the economy was supported by United States and Canadian loans and aid, which between them paid for about one-fifth of the United Kingdom's imports between 1946 and 1950.

The drive to increase exports was successful. By 1947 they had recovered their pre-war volume, and by 1950 they were two-thirds as high again. From 1950 onwards they rose more slowly, with returning German competition; by 1954 they were 80 per cent higher than pre-war. This recovery of exports was accompanied by a change in pattern; engineering products provided a growing share of them, and textiles a declining share; and there was no lagging behind in the development of exports of new products, as there had been between the wars. Meanwhile, imports had been kept down. In 1954 import volume was still a little below that of 1938.

By 1950—with a current surplus of £300 million on the balance of payments—post-war recovery appeared complete. But the outbreak of war in Korea in the middle of that year set the British economy back in two ways. With the world-wide rush to stock raw materials, it gave an especially sharp twist to the adverse movement of the terms of trade. And it forced Britain to begin rapidly to rearm. So in 1951 there was a current deficit of £403 million.

Import prices reached their peak in mid-1951 and then began to come down, and the rearmament programme levelled off. In 1952, 1953 and 1954 there was again a current balance of payments surplus. But most of 1954's surplus was earned in the first half of the year; and in the twelve months to mid-1955 the surplus was comparatively small (see pp. 298–302).

Production and Employment

Throughout the post-war period, both industrial production and the real national product have been increasing a good deal faster than in the inter-war years. The average rate of increase in industrial production from 1946 to 1954 was 5 per cent, and of the real national product, 3 per cent. From 1946 to 1952, most of this increase in real output was taken, first by increased exports; secondly, by increased investment, as the run-down of capital in the war was made good; and, thirdly, after 1950, by rearmament. From 1950 to 1953 the increase in defence expenditure took about half the increase in the country's total output.

Up to 1952, personal consumption did not rise much. There was a year-by-year increase in the average weekly earnings of the ordinary wage-earner; but this increase was roughly offset by increases in prices. (In the United Kingdom, as in most other countries, there was a sharp increase in prices in the years after the war: by 1952 prices were about 50 per cent above 1945.) From 1952 onwards, earnings began to rise faster than prices, and the standard of living rose more rapidly.

It was also after 1952 that war-time controls which had been retained began to disappear fast: raw material controls and building licences were abolished, Government buying abroad was much reduced in scale, and the system of food rationing was gradually abandoned.

Throughout the post-war period, high production has been accompanied by full employment in all parts of the United Kingdom except Northern Ireland. From 1946 to 1954 the unemployment rate has averaged less than 2 per cent of the working population (8½ per cent in Northern Ireland), whereas between the two world wars it was never below 10 per cent.

Prospects

The United Kingdom's main economic problems remain those of paying its way abroad and restraining the upward trend of prices. Its share in world exports of manufactures reached a peak in 1950 at 26 per cent. Since then, with the recovery of Germany and Japan, it has fallen back to its pre-war share of about one-fifth. Success or failure in maintaining the increase in the standard of living will depend very largely on keeping a large enough share of world exports of manufactures to finance the import bill.

THE NATIONAL INCOME 1948-54

Size and Source

In a comparison of national income per head in different countries (which provides a very approximate measure of living standards) the United Kingdom ranks in the second group, together with Norway, Sweden, Denmark, Switzerland, Australia, and New Zealand, below only the United States and Canada. From 1948 to 1954 the gross national product (which is a measure of the total goods and services produced) is estimated to have risen in real terms at a rate of about 3 per cent a year: in 1954 it was £15,718 million at current prices and (with allowance made for price changes) was 20 per cent higher than in 1948.

The predominance of industry in the United Kingdom economy is brought out in Table 8. In 1948–54 manufacturing, mining and building were responsible for well over two-fifths of the gross domestic product; agriculture provided 6 per cent.

TABLE 8

PERCENTAGE CONTRIBUTION TO THE TOTAL OUTPUT OF GOODS AND SERVICES (GROSS DOMESTIC PRODUCT)

(1948–54 averages)

	%
Agriculture, forestry and fishing	6
Mining and quarrying	4
Manufacturing	37
Building and contracting	6
Gas, electricity and water	2
Transport and communications	8
Distributive trades	13
Insurance, banking and finance	3
Public administration and defence	6
Public health and educational services	3
Other	12
	100

To these supplies from home production, imports added, on average, rather more than one-fifth.

Distribution

Out of the total supply of goods and services rather over a half, on average, has been going into personal consumption, and a fifth into exports. Investment—in industry, housing, etc.—has taken about an eighth of the total, and current expenditure by central Government and local authorities—on education, health, etc.—a slightly larger share. The figures are set out in Table 9.

TABLE 9

Distribution of Total Supplies of Goods and Services (1948–54 averages)

	%
Personal consumption	55
Public authorities' current expenditure	16
Investment, fixed and in stocks	12
Exports of goods and services	17
	100

There has been a significant change in the distribution of personal incomes (see Table 10). The income of employees has increased more than the income from any other source. In 1938 employees' incomes were 60 per cent of the total of personal incomes; by 1954 the share had risen to 70 per cent. In contrast, personal incomes from rent, dividends and interest had fallen to 12 per cent from the 1938 figure of 22 per cent.

TABLE 10

Distribution of Personal Incomes by Types of Income

Type of Income	Percentage			£ million
	1938	1948	1954	1954
Employees (wages and salaries, pay and allowances of Armed Forces, employers' insurance contributions)	60	67	70	10,200
Self-employed persons (professional persons, farmers, other sole traders and partnerships)	13	14	11	1,645
Rent, dividends and interest (received by persons)	22	12	12	1,678
Grants from public authorities (National Insurance benefits, etc.)	5	7	7	1,021
TOTAL PERSONAL INCOME	100	100	100	14,544

Since employees' incomes are on the average lower than other incomes, their increase, together with the redistributive effects of taxation, has resulted in concentrating the bulk of personal income after tax in the ranges of income of £250 to £1,000 a year and, compared with 1938, greatly reducing the share taken by the highest incomes (see Table 11).

TABLE 11

Distribution of Personal Incomes after Payment of Income Tax and Surtax

Ranges of income before tax	Number of incomes (*a*) (*thousands*)	Percentage of total number of incomes	Percentage distribution of aggregate income after tax (*b*)
Calendar Year 1938			
Under £125	16,700 (*c*)	63	35
£125–£249	7,083	27	29
£250–£499	1,890	7	15
£500–£999	539	2	8
£1,000–£1,999	183	1	5
Over £2,000	106	—	8
Calendar Year 1954			
Under £250	8,750	34	13
£250–£499	9,420	36	33
£500–£749	5,780	22	33
£750–£999	1,315	5	10
£1,000–£1,999	701	3	8
£2,000–£3,999	127·4	—	3
£4,000–£5,999	6·41	—	—
£6,000 and over	0·19	—	—

(*a*) Income of a married couple is counted as one income.

(*b*) More specifically, the percentage distribution by ranges of personal income before tax of the sum total of all personal incomes which can be allocated to ranges of income, after income tax and surtax have been deducted. Certain personal income which cannot be allocated to an income range is omitted from this total.

(*c*) Approximate figure, comprising all married couples and single persons over 14 years of age not included in the higher ranges. It includes those without income but not seeking remunerative work (chiefly single women and students). A comparable figure for 1954 is 10·5 million persons.

As total personal incomes have risen, the share of them taken by taxes has declined; and although personal consumption of goods and services has increased (in 1954 it was 11 per cent up on 1948, in real terms) its share of total personal outlay has declined to a little over four-fifths. These changes have been accompanied by a large rise in savings, though these figures are particularly uncertain. Table 12 shows how personal incomes were spent.

TABLE 12

Personal Outlay

(percentage shares, averages)

	1948–51	1952–54
Taxes on income (including National Insurance contributions)	14	12½
Savings	1½	6
Personal consumption	84½*	81½*

* Of this about 15 per cent went in indirect taxes, less subsidies.

The way in which personal consumption was divided between different kinds of commodities is shown in Table 13. This division is influenced by the incidence of indirect taxes. Some foods are subsidized, and drink and tobacco are very heavily taxed; expenditure on food is thus a lower percentage of personal consumption, and expenditure on drink and tobacco a higher percentage, than might otherwise be the case.

TABLE 13

DIVISIONS OF PERSONAL CONSUMPTION
(1948–54 averages)

	%
Food	30
Drink and tobacco	16
Rent, rates, fuel and light	12
Household goods	8
Clothing	11
Private motoring and travel	6
Other goods and services	17
	100

Government Income and Expenditure

The Government's share in the total supplies available has been given in Table 9 as 16 per cent. But the percentage of total incomes which the Government takes is higher, since public authorities raise a considerable part of their income, not to spend it on goods and services, but to redistribute as pensions or subsidies. If the total income of the central Government, local authorities and the National Insurance Fund is compared with the total income received by everyone (including companies) for work done, the percentage is about 40.

Table 14 gives a summary of the way in which public authorities—the central Government, local authorities, and the National Insurance Fund—collected and spent their incomes in 1954.

TABLE 14

COMBINED REVENUE ACCOUNTS OF PUBLIC AUTHORITIES IN 1954

Revenue	%	£ million	Expenditure	%	£ million
Taxes on income and capital	39	2,308	Defence	26	1,520
Taxes on outlay—alcohol, petrol, purchase tax, entertainments, betting, etc.	34	2,016	Grants to persons—pensions, subsidies, national insurance, etc.	24	1,424
National Insurance contributions	9	532	Local authorities' current expenditure on goods and services	13	787
Rates	8	460	Interest on national and local debt	13	750
Profits and other income from property	9	512	National Health Service	8	460
Grants from overseas	1	50	Other expenditure	8	493
			Surplus	8	444
	100	5,878		100	5,878

V. INDUSTRY

ORGANIZATION AND PRODUCTION

The United Kingdom is one of the most highly industrialized countries in the world. Ten people work in mining, manufacturing and building for every one in agriculture.

Location

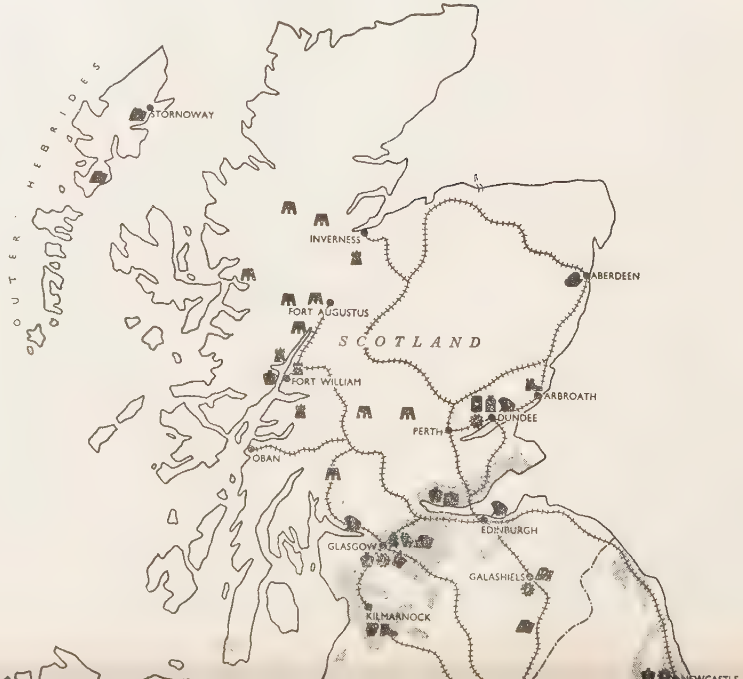
The factors that have influenced the location of industry in Britain are many and various. During the rapid industrialization of the nineteenth century, probably the most important influence was the proximity of coal, then the major source of power, particularly when it was associated with ease of access to other raw materials such as iron ore in the West Midlands and salt (for chemicals) in Cheshire, and to the coast which in turn offered easy access to imported raw materials and a quick outlet for exports. In the course of the past hundred years, the pull exercised by coal has been progressively weakened as improved means of communication and an alternative source of power in electricity have been developed and have enabled advantage to be taken of other sites—e.g., those near to big consumer markets and plentiful supplies of unspecialized labour. During the inter-war period there was a notable tendency for the 'new' industries such as motor vehicles, electrical goods and rubber manufactures to develop rapidly in the South (especially in and around Greater London) and the Midlands. On the other hand, this period was one of acute depression for the older industrial areas which specialized in the great staple industries—coalmining, steel, shipbuilding, marine engineering and cotton. These factors prompted official action which, since the war, has aimed at encouraging new industrial development and diversification in the areas concerned and discouraging further industrialization in congested areas such as Greater London and Greater Birmingham.

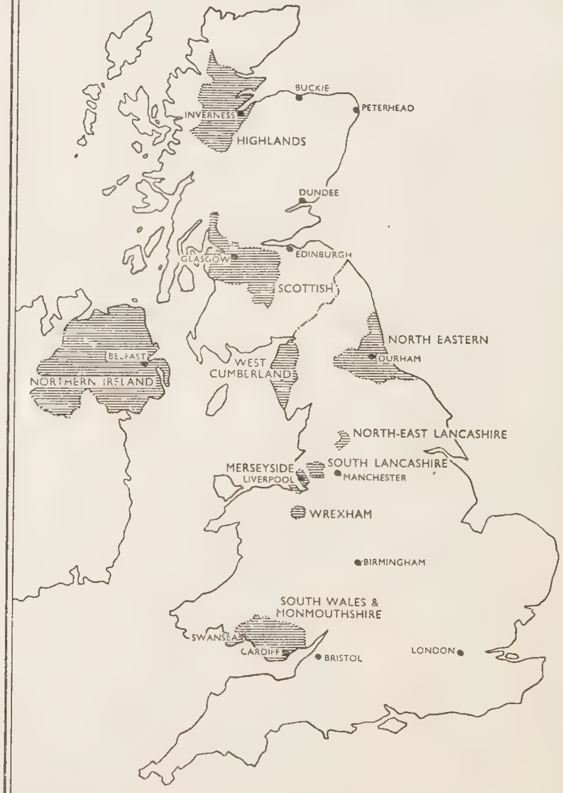
Although industry is today widely dispersed, the areas of industrial concentration are still, with one exception (London), the areas which saw the beginning of Britain's industrial greatness and which, with two exceptions (London and Northern Ireland), are on or near coalfields. These areas and their main industries are listed below. Four of them—Lancashire, South Wales, Tyneside, and Central Scotland—contain Development Areas (see p. 129) where, as in Northern Ireland, considerable success has been achieved by Government action to diversify the industrial structure at the same time as prosperity has returned to their staple industries.

Greater London. In addition to its building, food and drink industries, London is the main centre in Britain of the clothing industry, of printing, of the manufacture of furniture, of materials for the arts, of precision instruments and of many other specialized goods. Small firms predominate in all these industries, so that the average size of manufacturing firms in London is well below the national average. London is also an important centre for light engineering and has some heavy engineering. Indeed, London is so large and its industries so diverse that it is a centre, if not the principal centre, for many of the broad groups of manufacturing industries, with the notable exception of textiles.

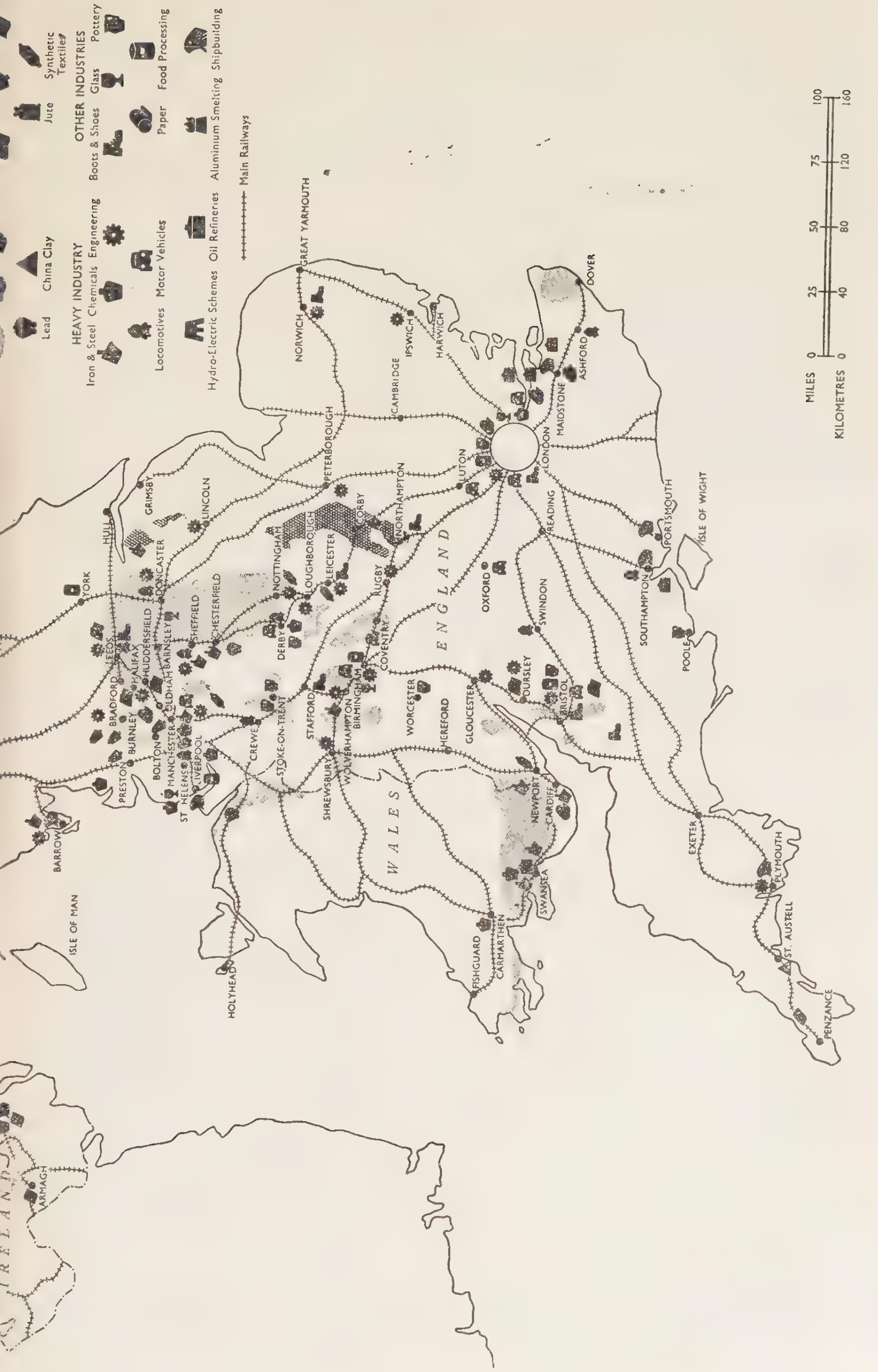
Midlands. The main Midland industrial area consists of the great conurbation centred on Birmingham and Wolverhampton which includes portions of Staffordshire, Worcestershire and Warwickshire, where there is a wide variety of industry,

Location of Industry


OUTER HEBRIDES
STORNOWAY
INVERNESS
FORT AUGUSTUS
SCOTLAND
ABERDEEN
FORT WILLIAM
ARBROATH
DUNDEE
PERTH
OBAN
EDINBURGH
GLASGOW
GALASHIELS
KILMARNOCK
NEWCASTLE


BUCKIE
PETERHEAD
INVERNESS
HIGHLANDS
DUNDEE
EDINBURGH
GLASGOW
SCOTTISH
NORTH EASTERN
DURHAM
BELFAST
NORTHERN IRELAND
WEST CUMBERLAND
NORTH-EAST LANCASHIRE
MERSEYSIDE
LIVERPOOL
SOUTH LANCASHIRE
MANCHESTER
WREXHAM
BIRMINGHAM
SOUTH WALES & MONMOUTHSHIRE
SWANSEA
CARDIFF
BRISTOL
LONDON

The Development Areas


Lead
China Clay
Jute
Synthetic Textiles
HEAVY INDUSTRY
Iron & Steel
Chemicals
Engineering
OTHER INDUSTRIES
Boots & Shoes
Glass
Pottery
Locomotives
Motor Vehicles
Paper
Food Processing
Hydro-Electric Schemes
Oil Refineries
Aluminium Smelting
Shipbuilding
Main Railways
MILES
0
25
50
75
100
KILOMETRES
0
40
80
120
160
GREAT YARMOUTH
NORWICH
IPSWICH
HARWICH
CAMBRIDGE
PETERBOROUGH
DOVER
ASHFORD
MAIDSTONE
LONDON
LUTON
NORTHAMPTON
CORBY
READING
PORTSMOUTH
ISLE OF WIGHT
SOUTHAMPTON
POOLE
OXFORD
SWINDON
GRIMSBY
LINCOLN
HULL
YORK
DONCASTER
NOTTINGHAM
LOUGHBOROUGH
LEICESTER
RUGBY
COVENTRY
CHESTERFIELD
SHEFFIELD
BARNSLEY
LEEDS
HUDDERSFIELD
HALIFAX
BRADFORD
DERBY
BIRMINGHAM
WOLVERHAMPTON
STAFFORD
STOKE-ON-TRENT
CREWE
OLDHAM
MANCHESTER
BOLTON
BURNLEY
PRESTON
ST HELENS
LIVERPOOL
BARROW
ISLE OF MAN
HOLYHEAD
SHREWSBURY
WORCESTER
HEREFORD
GLOUCESTER
DURSLEY
BRISTOL
NEWPORT
CARDIFF
SWANSEA
CARMARTHEN
FISHGUARD
EXETER
PLYMOUTH
ST. AUSTELL
PENZANCE
ENGLAND
WALES
IRELAND
ARMAGH

including notably the manufacture of electrical and engineering goods and vehicles but also jewellery and precision instruments, chemicals, rubber products and domestic metalware. The smaller adjacent conurbation of North Staffordshire centred on Stoke-on-Trent may be considered as a separate industrial area and is devoted chiefly to the manufacture of pottery and china and to the mining of coal. Derby, Nottingham, Leicester and Coventry are the principal industrial towns in the rest of the Midland area. There are several small coal deposits scattered throughout the area, while a large coalfield runs north and east of Derby and Nottingham.

Yorkshire. The West Riding of Yorkshire still contains much the bigger section of the British woollen and worsted industry, though Leeds is now more concerned with clothing and a variety of steel and engineering products. The modern woollen and worsted industry lies farther west, at Bradford, Halifax and Huddersfield. The city of Sheffield, in the extreme south of Yorkshire, is famous for its high-quality steel manufacture, its cutlery, plate and tool industry and its heavy engineering. There are extensive coalfields in the West Riding of Yorkshire.

South-east Lancashire. Manchester is the commercial centre of the cotton textile industry. Most cotton yarn is spun in towns within a ten-mile radius of Manchester, but weaving is mostly carried on somewhat farther to the north, in the Preston, Burnley, Nelson, Blackburn and Colne areas. Manchester itself, besides having the variety of industry typical of a large city, is one of Britain's chief centres of electrical and heavy engineering and dyestuffs. There are also coalfields in the Manchester area. The whole region flanking the River Mersey is industrial as well as commercial. Liverpool, besides being a port and produce market, is, after London, the greatest centre of food preparation, while ship repairing is carried on there and both shipbuilding and repairing on the other side of the river at Birkenhead.

South Wales. Coalmining, including the production of such special coals as steam coal and anthracite, has been and remains the chief industry of South Wales. The other basic industry is steel, including tinplate, in which extensive modernization is in progress.

Tyneside. In Northumberland and Durham, near the River Tyne, coalmining is the principal industry. This region also has steel and engineering industries; it is one of Britain's two greatest shipbuilding areas, the other being in Scotland. Most of the shipyards are on the lower reaches of the rivers Tyne, Tees and Wear.

Central Scotland. The largest shipbuilding centre in Britain is on Clydeside. It has a marine engineering industry and important neighbouring coalfields in the Lothians, Fife and Lanark, although activity in this last field is now declining as the seams are worked out. There is also a flourishing steel industry. The commercial importance of Glasgow and the size and varied appointments of the great ships produced on Clydeside have assured for this area a variety of manufactures. The whole of the central lowlands of Scotland from the Clyde to the Forth is industrialized.

Belfast Area. Another important shipbuilding area is Belfast, in Northern Ireland, even though it has no local supplies of coal and iron. It has also an engineering industry, primarily marine engineering, and there is a growing aircraft assembly industry. The traditional industries of Belfast are linen, rope and tobacco.

Distribution of Industry Policy

Areas in Great Britain where there is likely to be a special danger of unemployment may be scheduled by the Board of Trade as 'Development Areas' under the

Distribution of Industry Act, 1945. The purpose of this Act, and of the Distribution of Industry Act, 1950, is to promote the growth of new industry and the expansion of existing industry in the Development Areas. The main advantages which these Acts give to Development Areas are that the Board of Trade may build factories for letting to suitable industries and the Treasury may help by making loans or grants to undertakings which are unable to secure finance through normal channels. The Board of Trade factories are built and managed by Industrial Estate Companies. The directors of these companies are unpaid and are appointed by the Board of Trade, and their capital is provided from Government sources. The companies include North-Western Industrial Estates Ltd., North-Eastern Trading Estates Ltd., Scottish Industrial Estates Ltd., Wales and Monmouthshire Industrial Estates Ltd., and the West Cumberland Industrial Development Company Ltd.

There are Development Areas in the following parts of England and Wales: the mining and coastal areas of Northumberland and Durham; West Cumberland; South Wales and Monmouthshire; Wrexham; South Lancashire; Merseyside; and North-East Lancashire, which became a Development Area in March 1953. In Scotland the industrial area in and around the Clyde Valley, the Dundee area, and part of the Highlands have been scheduled as the Scottish Development Area.

The Government cannot direct a firm to go to any particular area or site. But, in addition to the special powers in scheduled Development Areas, the Board of Trade has statutory powers under the Town and Country Planning Acts, 1947, to ensure that new industrial development throughout Great Britain is carried out consistently with the proper distribution of industry. A certificate to this effect is necessary before planning consent may be given by a local planning authority (see p. 358) for a new industrial building or extension with an area of over 5,000 square feet.

New industrial buildings and extensions of over 5,000 square feet completed in Great Britain between the beginning of 1945 and the end of 1954 totalled nearly 216 million square feet. Of this total, 33 per cent was in the Development Areas which have, by contrast, 18 per cent of the country's insured workers in manufacturing industry.

Government assistance is not limited to Development Areas: it is given to other areas of high unemployment not listed as Development Areas. The Buckie-Peterhead area in north-east Scotland, which is heavily dependent on the fishing industry and has a hard core of unemployment, is not a Development Area but arrangements have been made for it to receive help through the Development Commission (see p. 373). The Commission has agreed to consider sympathetically requests for help in building small factories for industrialists who are prepared to go there.

The Distribution of Industry Acts do not apply to Northern Ireland because the matters they deal with are, under the Northern Ireland constitution, the concern of the Northern Ireland Parliament, which has passed legislation to encourage industrial expansion and diversification. The Northern Ireland Government builds factories and provides grants and loans for new industrial undertakings. As a result of these efforts, over 170 firms have started production for the first time in Northern Ireland or have expanded their employment since 1945 with Government assistance, and are already providing employment for nearly 26,000 workers. The United Kingdom Government also helps Northern Ireland, in the same way as it helps Development Areas in Great Britain, by giving preference in the matter of Government contracts.

Organization

The British economy is a mixed economy, in which private and public enterprise both play a substantial part. Throughout the first half of the twentieth century, the public sector tended to grow relatively to the private sector. This tendency is connected largely with the increasing concern of Government with such matters as health, education and housing. But up to 1950, and particularly in the decade 1940–50, there was also an increase in the State's direct participation in productive economic activities, although since 1951 this increase has been checked and in two instances—steel and road transport—steps have been taken to return ownership to private enterprise. State participation is effected mainly through special statutory bodies set up to deal with a particular activity. Such bodies, though not part of a Government Department, are under a considerable but varying degree of public control (see pp. 136–7). The most important of these statutory bodies have been the public corporations which operate major industries and services in the public interest.

The public corporation in its twentieth-century form is, generally speaking, a public body having a clearly defined and specific task. Its board of directors and its staff are chosen for their experience and competence in a particular field; they are not civil servants, and although they are accountable to Parliament for their actions in a variety of ways, they are free from full and continuous ministerial control. Certain of the corporations are self-supporting. Others receive Exchequer grants to help them in carrying out the duties with which they have been charged.

Before the second world war a number of public corporations were established,[1] designed to reorganize and to operate for the public benefit some service that required co-ordination on a national scale or control by a body responsible for the public interest. Their constitutions had no standard pattern and even their governing bodies differed in the method of appointment and in composition.

Immediately after the second world war the Nationalization Acts set up public corporations to run certain major industries and services, including coalmining, inland transport, gas supply, electricity generation and supply and civil air transport. These post-war corporations are less varied in the composition of their governing bodies, which are appointed by the responsible Minister, who has full powers of dismissal.

The following corporations are now operating or controlling industries or services:

The Bank of England (see p. 288).

The British Broadcasting Corporation (see p. 399).

Cable & Wireless Limited (see p. 250).

The British Transport Commission (see p. 217).

The Ulster Transport Authority (see p. 233).

The British Overseas Airways Corporation (see pp. 235–6 and 237–9).

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[1] The principal corporations appointed before the second world war were: (1) the Central Electricity Board, established by the Electricity Supply Act, 1926, to rationalize electricity generation and build and operate a main transmission system; (2) the British Broadcasting Corporation, established in 1927 by Royal Charter to provide a national broadcasting service; (3) the Electricity Board of Northern Ireland, established by the Electricity (Supply) Act (Northern Ireland), 1931, to develop electricity supplies in Northern Ireland outside the two County Boroughs; (4) the London Passenger Transport Board, established by Act of Parliament in 1933, to operate the public transport system of the London Metropolitan area; (5) the Northern Ireland Road Transport Board, established by the Road and Rail Transport Act (Northern Ireland), 1935, to acquire public road transport services in Northern Ireland outside the County Boroughs; (6) the British Overseas Airways Corporation, established by the British Overseas Airways Act, 1939, to take over the operation of the two main existing air transport companies—Imperial Airways and British Airways.

British European Airways (see pp. 235–6 and 239–41).
The National Coal Board (see p. 169).
The Gas Council and Area Gas Boards (see p. 180).
The Central Electricity Authority (see pp. 173–4).
The Electricity Board for Northern Ireland (see p. 175).
The North of Scotland Hydro-Electric Board (see p. 175).
The South of Scotland Electricity Board (see p. 175).
The United Kingdom Atomic Energy Authority (see p. 379).

An analysis made privately in 1950 by a government statistician found that the number of persons employed in the public sector of the economy as a whole increased by 50 per cent between 1945 and 1950, so that by the middle of 1950, 22½ per cent of the total number of persons in civil employment were in the public sector and 77½ per cent in the private sector. In manufacturing and building, private enterprise still accounts for the major part of activity, employing, in 1950, 96 per cent of the persons engaged in these industries. Also in terms of employment, only about 30 per cent of the public utilities—gas, electricity, water and transport—was the concern of private enterprise. In mid-1955 the position was still approximately the same.

Mining and Quarrying

Much the most important of the British extractive industries is coalmining.

The coalmining industry of Great Britain is operated as a single co-ordinated enterprise under the direction of the National Coal Board. The mining of iron ore is in the hands of private companies, many of which, though retaining their individual names and managements, were brought under public ownership by the Iron and Steel Act of 1949. Under the Iron and Steel Act of 1953 (see p. 188) the companies are in process of being returned to private ownership. Many of these companies, in addition to extracting ore, are engaged in at least some of the manufacturing processes of iron and steel production.

Other mining and quarrying (e.g., sand, gravel, chalk, limestone, salt, tin, slate, oil shale and china clay) is undertaken by private enterprise, usually owned and operated by limited liability companies.

Manufacturing

Most manufacturing is still in the hands of private enterprise. Some exceptions are locomotives and rolling-stock for use on British Railways, mostly built in workshops owned and operated by the British Transport Commission, a considerable quantity of arms and military equipment made in Royal Ordnance factories and other factories operated by the Ministry of Supply, and some fighting ships built in naval dockyards operated by the Admiralty. Some printing and bookbinding is undertaken by staffs of the Stationery Office, while the repair, and to a limited extent the construction, of Post Office equipment is carried on in factories run by the Post Office. The companies primarily concerned with the manufacture of iron and steel which were owned by the Iron and Steel Corporation, and subject to its policy direction, are being returned to private ownership under the Iron and Steel Act of 1953.

A survey of the size of all manufacturing establishments employing more than 10 persons was made by the Ministry of Labour and National Service in January 1954; the results of the survey are shown in Table 15 overleaf.

Over a quarter of all employees in manufacturing industries are in establishments employing from 100 to 500 persons. A high proportion of the biggest establishments

TABLE 15

DISTRIBUTION BY SIZE OF MANUFACTURING FIRMS IN TERMS OF NUMBERS EMPLOYED AT JANUARY 1954*—GREAT BRITAIN

Industry Group	11–24 Employees	25–99 Employees	100–499 Employees	500–999 Employees	1,000–1,999 Employees	2,000 or more Employees	Total
A. NUMBER OF ESTABLISHMENTS							
Treatment of non-metalliferous mining products other than coal	583	1,330	622	57	20	8	2,620
Chemicals and allied trades	566	957	583	101	36	25	2,268
Metal manufacture	355	734	590	142	66	49	1,936
Engineering, shipbuilding and electrical goods	2,307	3,614	1,943	379	239	114	8,596
Vehicles	2,255	2,287	676	128	91	91	5,528
Precision instruments and other metal goods	1,808	2,653	1,030	122	42	9	5,664
Textiles	993	2,808	2,287	189	46	16	6,339
Leather, leather goods and fur	319	491	140	4	—	—	954
Clothing	1,789	3,159	1,177	102	18	3	6,248
Food, drink and tobacco	2,352	2,631	1,135	121	65	21	6,325
Paper and printing	1,409	1,884	849	97	36	12	4,287
Manufactures of wood and cork and miscellaneous manufacturing industries	1,785	2,677	870	68	26	16	5,442
TOTAL	16,521	25,225	11,902	1,510	685	364	56,207
B. NUMBER OF EMPLOYEES (*thousands*)							
Treatment of non-metalliferous mining products other than coal	10	65	131	38	29	22	295
Chemicals and allied trades	10	50	124	71	49	98	402
Metal manufacture	6	37	127	97	90	162	519
Engineering, shipbuilding and electrical goods	40	181	430	263	331	450	1,695
Vehicles	38	106	142	91	133	424	934
Precision instruments and other metal goods	31	131	209	82	54	24	531
Textiles	18	152	489	125	62	52	898
Leather, leather goods and fur	6	25	25	2	—	—	58
Clothing	31	157	231	70	25	10	524
Food, drink and tobacco	40	128	234	83	88	81	654
Paper and printing	24	94	176	67	47	37	445
Manufactures of wood and cork and miscellaneous manufacturing industries	31	132	169	45	33	62	472
TOTAL	285	1,258	2,487	1,034	941	1,422	7,427

Source: Ministry of Labour and National Service.

[*] Establishments in manufacturing industries with more than ten employees from which returns were received in January 1954. The analysis follows the Orders of the Standard Industrial Classification.

are in the heavy industries, while the average size of establishments in industries making consumer goods is smaller than in manufacturing industries as a whole. Comparisons with results obtained in earlier surveys on similar lines suggest that there is a slow but significant trend towards an increase in the average size of manufacturing establishments: in January 1954 establishments with 1,000 or more employees were found to employ 2,363,000 persons, more than twice as many as in 1935.

The size of establishments is not in itself an indication of the size of manufacturing firms, as a single firm may own several establishments. There are no general surveys of the size of manufacturing firms comparable with the survey of establishments. It is known, however, that in a few industries a small number of big companies are responsible for most of the total production. Shares in these companies are usually distributed among a great number of holders and it is unusual for a few large holders to have a controlling interest.

The way in which the work of production is divided within and between different firms varies from industry to industry. In the cotton industry, for example, it is usual for different firms to undertake the various main processes of production (spinning, weaving, finishing), while in the woollen section of the wool textile industry all these processes are commonly undertaken within the same firm. Some of the leading establishments in the vehicles group of industries are primarily engaged on the assembly of parts, many of which have been built for them under contract by specialist firms.

Building and Civil Engineering

In building and civil engineering most of the work is undertaken by private firms. Since the end of the second world war, most new houses have been built by firms under contract to local authorities, but an increasing number are now being built by private enterprise, mainly for owner-occupiers but some for sale. Some 10 per cent of local authorities employ direct labour for the construction of new houses, while about 75 per cent use their own labour for repair and maintenance.

Building firms may be divided into those undertaking general building and civil engineering work and those undertaking highly specialized work, many of which operate outside as well as inside the building industry. Building is an industry of small firms; between 25 and 30 per cent of building operatives work in firms employing from 20 to 99 persons, while over 10 per cent work in firms employing fewer than six persons or are self-employed.

Industrial Association

From the middle of the nineteenth century private industrial undertakings have increasingly entered into voluntary association for a number of different purposes. Some of the more important of these purposes may be classified as follows:

1. The provision of common services, the exchange of information, liaison with Government, and representation of their members' point of view.
2. The regulation of trading practices. Where this involves restrictions on competition, the Monopolies Commission (see pp. 137–8) can be asked by the Board of Trade to investigate the effect of such restrictions on the public interest.
3. Negotiation with trade unions about wages and conditions of work.

Associations for the first and third of these purposes cover with varying completeness almost the whole of British industry but there are wide sectors of industry where there is no collective agreement to regulate trading practices. Associations which deal with labour matters generally consist of firms engaged in the same type of manufacturing process. Organizations mainly concerned with representations to Government, provision of common services or the regulation of prices are built up round a product or an allied group of products. In an industrial sector concerned wholly with an allied group of products, a single association may undertake all the required functions.

There are about 270 national federations and probably about 1,600 other employers' organizations (mostly regional or local, and members or branches of the national federations) all concerned with negotiation of wages and conditions of work. Most of the national federations are in turn affiliated to the *British Employers' Confederation*, the national body representing employers on labour questions affecting industry generally (see p. 263).

No comparable statistics exist for associations concerned with such matters as the provision of common services, or the regulation of trade and prices. There are, however, about 300 national organizations which are affiliated to the *Federation of British Industries* (FBI), the national body recognized as the spokesman for British industry on economic, commercial and production (as distinct from labour) questions. The FBI has offices in the main industrial centres in the United Kingdom and is very widely represented abroad.

A number of the organizations affiliated to the FBI also deal with labour matters and are affiliated to the British Employers' Confederation. The two organizations work closely together on matters of common interest.

Other important national associations of employers are the *National Union of Manufacturers* (NUM) and the *Association of British Chambers of Commerce*. The members of NUM are over 5,000 manufacturing firms, mainly small or medium sized, and some 70 trade associations are affiliated to it. Like the FBI it has regional branches. The Association of British Chambers of Commerce is the central organization to which local Chambers of Commerce are affiliated. There are about 100 of these local Chambers. They are open to all kinds of producers and traders and exist for promoting the interests of local industry and commerce. These last three national organizations, all being concerned with industrial and trading matters, often collaborate in the consideration of particular questions.

In Scotland, there is the *Scottish Council* (*Development and Industry*), representative of Scottish local authorities, the trade unions, trade associations, Chambers of Commerce and the banks. It encourages and assists the expansion of existing industry, the growth of new industries, the economic utilization of Scotland's natural resources and the promotion of exports.

The *British Institute of Management* is the central national body for the promotion of good management in Britain. It conducts research into and acts as a centre of information on management principles and techniques and is concerned with the development of education and training at all levels of management and supervision. The Institute receives a grant-in-aid from the Government, but it is financed in the main by subscriptions from companies who support the Institute as corporate subscribers.

Relations with Government

The system has grown up whereby as a general rule each industry has a particular Government Department as its 'Production Department'.

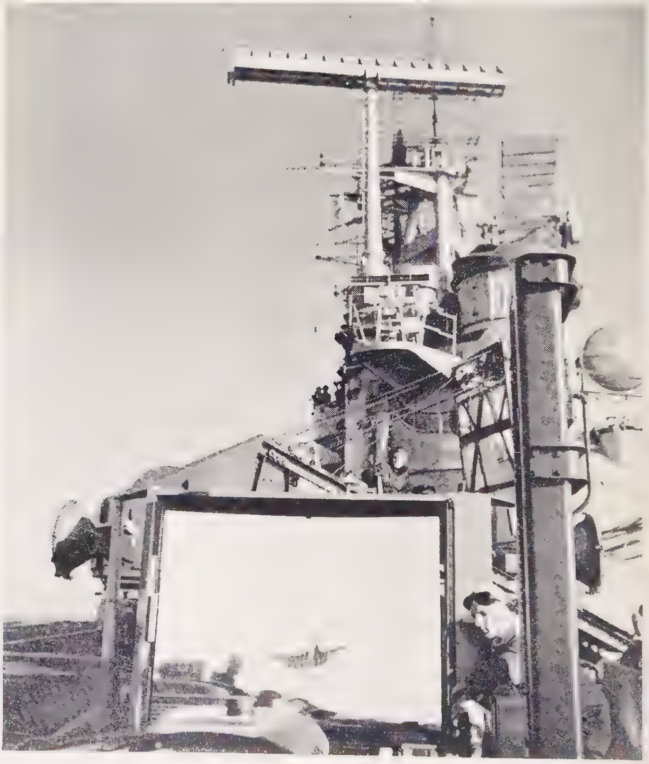
The main Production Departments and the main industries and services in which they are interested are:

Whitehall, London, where many Government Departments have their headquarters.

A police constable in London uses a police public telephone post; his attention is attracted by a flashing beacon on top. The public may also use the post to call the police.

Hawker *Hunter* jet fighters in squadron service with the Royal Air Force.

The mirror deck-landing aid in use on the aircraft carrier *Ark Royal*; a *Gannet* of the Fleet Air Arm is seen landing.



The *Battalion* recoil-less anti-tank gun in action.

Board of Trade	All industries and materials not the responsibility of another Department, among the most important being the iron and steel, non-ferrous metal and engineering (other than aeronautical and radio) industries, the textile (including clothing), paper and film industries, and a large part of the chemical industry.
Ministry of Supply	Aircraft, radio and light metal industries and explosives. (The primary task of the Ministry is to supply the Armed Forces.)
Admiralty	Shipbuilding and ship repairing.
Ministry of Agriculture, Fisheries and Food	Farming, horticulture, agricultural machinery, fisheries, and food processing.
Ministry of Fuel and Power	Coal, gas, electricity and oil.
Ministry of Transport and Civil Aviation	Transport services (including civil aviation), roadmaking, and certain sections of the quarrying industry.
Ministry of Works	Building, civil engineering and building materials.
Ministry of Housing and Local Government	House-building.
Ministry of Health	Medical and surgical goods.

The Treasury and the Ministry of Labour and National Service, though prominent in economic matters, have no production authority duties.

During and after the second world war many operations of industry and commerce were subject to Government control. Most of these controls have been relaxed, but some remain. Thus the consent of the Treasury is required for the issue of large amounts of fresh capital or for the purchase of foreign currency; and that of the Board of Trade for the import or export of certain goods. The Board of Trade also has certain powers to influence the location of industry (see p. 129), and the Ministry of Housing and Local Government, acting through local planning authorities, has powers to control the use of land (see pp. 356–61).

In the post-war period an effective control was that over the allocation, distribution and use of raw materials. The degree of control was governed to a large extent by the supply situation—an important factor in which is the availability of foreign exchange—and varied from time to time. Thus, controls removed in the immediate post-war years had to be reimposed in 1951 when the rearmament programmes of the free world, superimposed on rising civilian demands, caused shortages of many key raw materials, including zinc, lead, copper, nickel and steel. Since then, an improving supply position has made it possible to relax all these controls.

All Departments which are production authorities, and some others, have a responsibility for promoting increased productivity and efficiency in industry. Production authorities, for example, encourage the establishment within each industry and within individual undertakings of joint councils and committees in which representatives of employers and of workers discuss together improvements in methods and technique. They also work with and through various statutory and voluntary bodies concerned with the same ends, and make grants to them in appropriate cases. Such bodies include employers' associations (see p. 134) and trade unions (see p. 264); the British Productivity Council (see p. 140), a voluntary body representing employers and trade unions; the various management and professional associations including the British Institute of Management (see p. 134), the Council of Industrial Design (see p. 390), and the *Development Councils* which may be set up under the provisions of the Industrial Organization and Development Act, 1947, by Departments responsible for the industry concerned. The purpose of the Development Councils is to provide firms in an industry with those services (research, design, statistics, and personnel training) which individual firms cannot afford out of their own resources. There are at present development councils for the cotton industry (*The Cotton Board*), and for the furniture industry. The Department of Scientific and Industrial Research (see p. 375) encourages and sometimes finances industrial research and also itself conducts research useful to industry. The national standards organization is the British Standards Institution, a voluntary non-profit-making body, incorporated by Royal Charter. It is governed by a General Council consisting of representatives of the main organizations of employers and workpeople, the professional institutions and the larger Government Departments, and it receives a Government grant.

The Board of Trade conducts information activities bearing on the efficiency of British industry and in particular on methods of increasing industrial productivity. It is responsible jointly with the Ministry of Labour and National Service for the editorial policy of *Target*, a monthly productivity bulletin circulated to firms and trade unions.

Technical advice is available for those firms which ask for it through such services as the National Agricultural Advisory Service of the Ministry of Agriculture, Fisheries and Food, and the Personnel Management Advisory Service of the Ministry of Labour and National Service.

To ensure that industry is fully aware of Government policy and that policy is framed with a full knowledge of industry's needs and difficulties, a number of consultative bodies have been set up representing Government, employers' associations and trade unions. Among the more important of these are the *National Production Advisory Council on Industry* (NPACI) and the *National Joint Advisory Council* (NJAC). The NJAC consists of representatives of private employers, the boards of nationalized industries and trade unionists under the chairmanship of the Minister of Labour and National Service, and is concerned with matters affecting the relations between employers and workers (see p. 267). The NPACI, which covers the wider problems of industrial production, is under the chairmanship of the Chancellor of the Exchequer and includes representatives of the Regional Boards for Industry and of certain Government Departments as well as of employers and workers. Northern Ireland has its own Production Council, corresponding to the NPACI, to the meetings of which it sends two representatives as observers.

These consultative bodies approach the study of problems from a broad national point of view. There are in addition consultative bodies concerned with the special problems of Scotland and Wales and of the English regions. The most important of these are the *Regional Boards for Industry* whose main functions are to keep the Government informed on industrial conditions in the nine English regions and in Wales and Scotland, and to provide a link between central Government and local industry.

Government and Public Corporations

The extent to which the responsible Minister has power over the working of the Boards set up to run those industries which have been nationalized varies from industry to industry, but two features are common to almost all of them. First the

Minister appoints the chairman and members of each Board, and secondly he has power to give general directions as to how the industry should be run, but does not interfere in day-to-day management. It is usually also laid down that the Board shall give to the Minister any information, statistics, financial accounts, and so forth, which he may require.

The most usual financial arrangement is that the Board is required to conduct its business so that receipts at least balance outgoings over a period of years. The exception to this rule is civil aviation; the Minister of Transport and Civil Aviation (subject to Treasury approval) has power to make grants to the two Airways Corporations up to specified limits in the first years of their existence. The responsible Minister is usually empowered (subject to Treasury approval) to say what shall be done with any surplus should the Boards make a profit. The Boards can also borrow money up to certain limits, but require the consent of the responsible Minister and the Treasury each time.

The Minister responsible for each nationalized industry must take steps to see that the interests of the industry's customers are protected. This is usually done by the establishment of representative consumers' councils to consider complaints and suggestions made to them and advise the Board or the Minister on the changes they think desirable. It is recognized that these arrangements are still to a great extent experimental.

In most other respects the nationalized industries have the same relations with the Departments responsible for them as do the private industries; they look to them for sponsorship and advice on productivity, and are subject to the same controls.

In order to ensure that parliamentary discussion of the nationalized industries is informed and effective, a Select Committee on the Nationalized Industries was appointed in March 1955. It consists of 13 Members of the House of Commons who are 'to examine the Reports and Accounts of the Nationalized Industries established by Statute whose controlling Boards are wholly appointed by Ministers of the Crown and whose annual receipts are not wholly or mainly derived from moneys provided by Parliament or advanced by the Exchequer, and to obtain information as to so much of the current policy and practices of those industries as are not matters which:

(1) have been decided by or clearly engage the responsibility of any Ministers;

(2) concern wages and conditions of employment and other questions normally decided by collective bargaining arrangements;

(3) fall to be considered through formal machinery established by the relevant Statutes; or

(4) are matters of day-to-day administration.'

Monopolies and Restrictive Practices

Under the Monopolies and Restrictive Practices (Inquiry and Control) Act, 1948, an independent Commission called the Monopolies and Restrictive Practices Commission was established to investigate and report on matters referred to it by the Board of Trade, which also appoints the members of the Commission. Broadly speaking, a reference may be made where it appears that at least one-third of the supply, processing or exports of any commodity is in the hands of a single firm or of a number of firms which so behave as to restrict competition. Where the Commission finds that these conditions do prevail and are contrary to the public interest, and the industry concerned fails to implement the Commission's recommendations, Production Departments are empowered by the Act to take suitable remedial action. The Board of Trade is required to publish an annual report on the working of the Act, including a list of the suggestions and requests made for reference of matters to the Commission.

In October 1953 a Monopolies and Restrictive Practices Commission Act was passed, the purpose of which was to strengthen the Monopolies Commission and enable it to deal at any one time with a greater number of references. This Act increased membership of the Commission from 10 to 25 and provided, among other things, that its work might be divided among groups of members selected by the chairman. At the end of 1954 the Commission comprised 16 members, and groups of between eight and ten members had been appointed to consider a number of matters referred to them.

By the end of June 1955 the Commission had been given references relating to the following matters: dental goods, cast iron rainwater goods, electric lamps, insulated electric wires and cables, matches and match-making machinery, insulin, semi-manufactures of copper and copper-based alloys, printing of woven fabrics, imported hardwood and softwood timber and plywood, buildings in the Greater London area, certain electrical and allied machinery and plant, pneumatic tyres, hard fibre cordage, linoleum, sand and gravel in central Scotland, certain industrial and medical gases, standard metal windows and doors, some types of rubber footwear, electronic valves and cathode-ray tubes, and equipment for electric street lighting. Reports had been made on the first ten of these matters. In the case of dental goods, an Order made exclusive dealing and collective boycott unlawful; in the other cases, remedial action was taken by the industry concerned, except in the case of insulin, where the Commission found that manufacturers' arrangements operated in the public interest, the printing of woven fabrics where the Commission's recommendations were (in June 1955) still being considered, and semi-manufactures of copper and copper-based alloys where the Commission was asked for a further report (since published in September 1955).

In December 1952 the Commission began an investigation into the general effect on the public interest of certain widely prevalent practices; broadly speaking, its inquiry covered arrangements between a number of traders to discriminate in favour of, or against, a defined class of customer. The practices included those referred to in reports of the Commission as 'exclusive dealing' and 'collective boycott'. The Commission's report was published in June 1955. On the basis of its recommendations, the President of the Board of Trade announced the Government's intention to introduce legislation to call for the registration of specified practices; thereafter, if firms wished to continue operating such a practice, they would have to justify it before an independent tribunal.

Production and Productivity

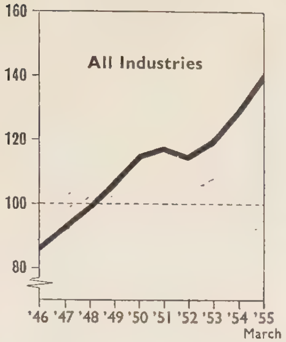
Industrial production (mining and quarrying, manufacturing, building and contracting, and gas, electricity and water) which, in 1954, was nearly 50 per cent greater than before the war, increased rapidly in the immediate post-war years as industry was turned over from war production, and manpower was released from the armed forces. It had regained the pre-war level by 1946 and was 15 per cent greater by 1948. The course of production, employment and productivity since 1948 is shown in Table 16, p. 140.

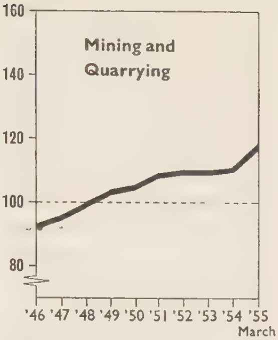
The slackening in production, employment and productivity in 1952 was due mainly to a fall in demand at home and overseas which affected particularly the consumer goods industries of textiles and clothing.

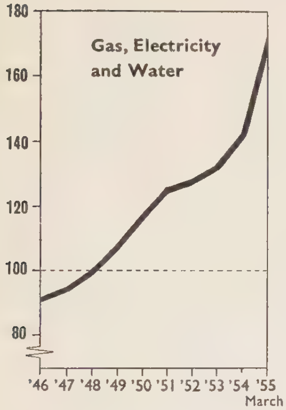
Over the post-war period as a whole the greatest increases in production have been in the engineering, shipbuilding and electrical goods group, the vehicles group

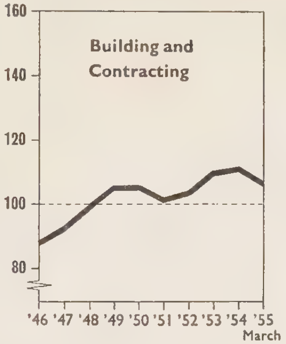
INDEX OF INDUSTRIAL PRODUCTION

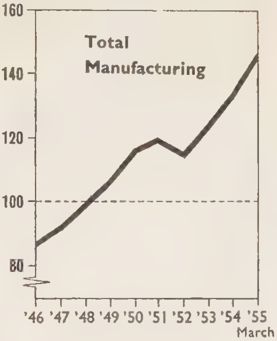
100 represents 1948
level of production



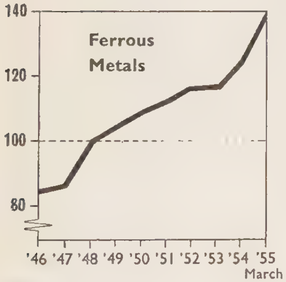


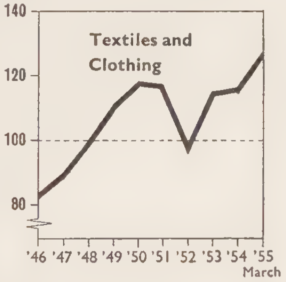


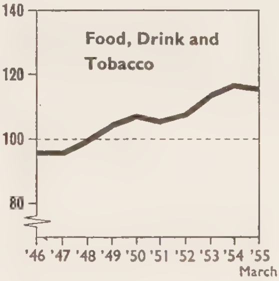


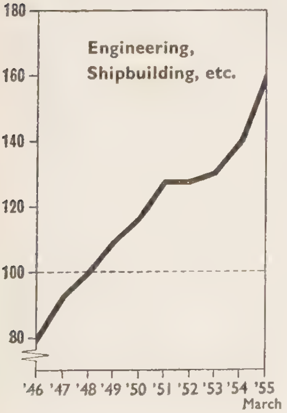


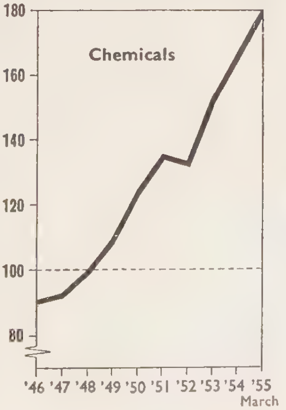
MANUFACTURING INDUSTRIES











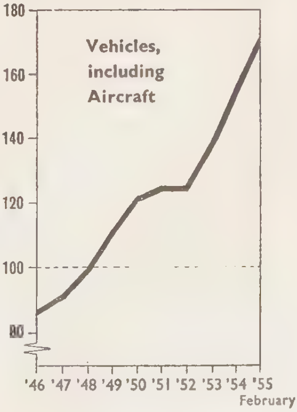


TABLE 16

PRODUCTION, EMPLOYMENT AND OUTPUT PER MAN IN INDUSTRY

	Industrial Production	Employment in Industry	Output per Man-year in Industry
1948	100	100	100
1949	106	102	105
1950	114	103	110
1951	117	106	111
1952	114	105	108
1953	121	106	114
1954	129	108	119

Source: *Economic Survey*, 1955.

and the chemicals group, with increases since 1946 of approximately 60 per cent, 60 per cent and 70 per cent respectively.

The need to increase productivity has been a constant concern of Government and industry. One important step was the formation in 1948 of the Anglo-American Productivity Council, the main purpose of which was to promote productivity in Britain through the exchange of ideas between various British industries and the corresponding industries in the United States. 'Productivity teams', made up of representatives of management, technical and workshop levels from British industries, were sent to the United States for study and, on their return, their findings were made public.

When this Council was wound up after four years' work, its task of helping to promote higher productivity in Britain was continued by the *British Productivity Council*, formally established in London in November 1952. This is an independent body on which the following organizations are represented: the British Employers' Confederation, the Federation of British Industries, the Trades Union Congress, the Association of British Chambers of Commerce, the National Union of Manufacturers and the nationalized industries. Its programme of action includes the formation of Local Productivity Committees and the exchange of visits between teams from different industrial firms for the purpose of studying common problems.

Management

There are probably about 400,000 to 500,000 persons in the United Kingdom who hold managerial posts in commerce or in industry.

During the present century, and particularly during and since the second world war, there has emerged in the United Kingdom, as elsewhere, a growing awareness of the importance of management as a subject requiring special skills and knowledge; this has been stimulated partly by the need to raise productivity in order to compete successfully in world markets, and partly by the conditions of full employment and pressure upon supplies of basic commodities such as steel, all combining to require the most effective employment of men, materials and machinery. Thus, there is now in the United Kingdom a considerable body of information about, and interest in, such subjects as the uses of industrial engineering (including work study, work simplification, plant layout and planned maintenance), the financial tools of management, such as cost accounting, and the techniques of such matters as production planning and product standardization. In addition, increased attention is being paid to human relations in industry, and to the importance of communication between management and labour.

A number of specialized management associations have come into being, requiring educational and other qualifications for membership, while, since the first world war, the professional engineering institutions have included industrial administration in the syllabus of their qualifying examinations.

During the second world war, the need was recognized for a central institution to co-ordinate education, information and research in management subjects. Soon after the end of the war a committee was appointed by the President of the Board of Trade to formulate precise proposals for such an institution, and, following its report, the British Institute of Management (see p. 134) was formed in 1947.

In 1954 the first Production Exhibition, sponsored by the Institution of Production Engineers, was held in London, and aroused considerable interest in the techniques and problems of management by demonstrating what could be achieved by their proper application.

Facilities for management training at all levels are growing, though most managers are not members of any management body, and only a minority have received systematic training in the principles of management. One of the most notable recent developments is the growth of work study training courses, whether run by industries, firms, trade unions or technical colleges. Education for management is developing mainly in four ways:

(1) a national scheme operating through more than 75 technical and commercial colleges throughout the United Kingdom;

(2) an external examination system operated by the Institute of Industrial Administration;

(3) independent courses conducted by universities and adult education centres, including the Administrative Staff College at Henley-on-Thames;

(4) the training schemes of trade associations, trade unions and individual firms

A growing interest is also taken in methods and techniques of training for all types of managerial work in other countries.

Capital Development

In recent years gross fixed capital formation has accounted for about one-seventh of gross national expenditure. In 1954, its volume, as distinct from its value, was 17 per cent greater than in 1938 and about 30 per cent greater than in 1948.

The actual course of fixed capital formation in 1938 and between 1948 and 1954 (at current and constant prices) was as follows:

Year	*1938*	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*
£ million (current prices)	656	1,406	1,552	1,678	1,851	2,039	2,305	2,452
£ million (1948 prices)	1,559	1,406	1,513	1,570	1,545	1,546	1,741	1,826

Thus, in real terms, investment did not increase in 1951 and 1952. The pressing needs of defence and exports in these years made it necessary for the Government to take measures to curtail investment. In 1953 it was possible to reverse this policy of restraint, and incentives were provided in the 1954 Budget (see p. 282). In the autumn of 1955 the pressure of internal demand made it necessary to supplement other restraints by calling for moderation in capital outlay by public authorities, and for private enterprise to move rather more slowly in implementing investment programmes.

Gross fixed capital formation by industry group—including housing and social services—at 1948 prices is shown in Table 17.

TABLE 17

GROSS FIXED CAPITAL FORMATION BY INDUSTRY

£ million, 1948 *prices*

	1938	1948	1949	1950	1951	1952	1953	1954
Agriculture, forestry and fishing	27	90	85	79	74	61	63	65
Mining and quarrying	18	30	35	31	30	37	47	61
Manufacturing ..	469(a)	348	384	427	438	416	417	422
Building and contracting	—(a)	20	21	22	27	32	32	40
Gas, electricity and water	143	138	168	182	181	178	194	217
Transport and communications(b) ..	208	194	208	198	172	158	199	201
Distribution and other services(c) ..	—(a)	113	130	147	132	110	128	146
New dwellings ..	474	342	327	315	318	388	491	497
Social services ..	85	41	60	69	71	74	76	76
Other public services	101	44	48	52	51	51	57	59
Legal fees, stamp duties, etc.	34	46	47	48	51	41	37	42
TOTAL	1,559	1,406	1,513	1,570	1,545	1,546	1,741	1,826

Source: *National Income and Expenditure,* 1955.

(*a*) In 1938 fixed capital formation by building and contracting and by distribution and other services is included with manufacturing.
(*b*) Excludes road goods transport.
(*c*) Includes road goods transport.

Gross fixed capital formation in manufacturing industry has expanded most since 1948 in mineral oil refining, chemicals, iron and steel, engineering, shipbuilding, electrical goods, vehicles, and food, drink.

AGRICULTURE AND FOOD

Although Britain is a densely populated, industrialized country relying on imports for half its food supply, agriculture remains one of its largest and most important industries. It employs about 1 million people or 5 per cent of the labour force and provides about 5 per cent of the gross national product, using 48 million of the 60 million acres of land.

THE LAND AND ITS USES

The land in general is highly fertile, and current agricultural practices, founded upon an age-old tradition of good husbandry improved by the application of modern scientific methods, result in some of the world's finest pedigree livestock and a yield per acre of grain crops among the highest in the world. In 1953, for example, previous record yields for these and other crops in England and Wales were again broken. Yields per acre were (in cwts.): wheat 24; barley 22·6; oats 21·2; rye 19·6; (in tons) potatoes 8·7; sugar beet 12·8.

The agricultural industry is less subject to serious dislocation caused by extreme climatic conditions than it is in some other countries; crops and livestock, for example, are seldom subjected to the dangers of drought, or floods, or severe cold. Nevertheless abnormal climatic conditions such as, in recent years, the severe winter of 1946–47, the East Coast floods of 1953, and the wet summer of 1954, do sometimes occur.

Types of Farming

There are about 535,000 agricultural holdings in the United Kingdom: 325,000 in England; 55,000 in Wales; 74,000 in Scotland; and 81,000 in Northern Ireland. About three-fifths of the total holdings are under 50 acres in size, but 97,000 (18 per cent) are over 100 acres and 15,500 (nearly 3 per cent) over 300 acres. In general, farms in Britain are run as businesses, each by a single manager, usually the farmer himself. Most farmers belong to one or more of the various organizations, such as the National Farmers' Union in England and Wales, which exist to represent their collective interests, and also to agricultural co-operative societies, which provide them with bulk-purchase and bulk-selling facilities.

In *England and Wales* out of a total of 29·8 million acres of agricultural land, 24·5 million acres are under crops and grass, the remainder being rough grazings.

Types of farming vary with difference of soil and climate. In general, the eastern half of England is devoted predominantly to arable, and the western half of England, together with Wales, to dairy farming. Pasture farming accounts for 37 per cent of agricultural land, arable for 22 per cent and mixed farming for 29 per cent, the remainder being unclassifiable or of little agricultural value. The chief crop is wheat followed by barley, oats, mixed corn and potatoes. Market gardens are usually found near towns, but much of the vegetable production is now on arable and mixed farms. Fattening of animals for food is widespread but is carried on particularly in the south-eastern and eastern counties and the Midlands, and stock-rearing is prevalent in Wales and in the North of England.

In *Scotland* out of a total of over 15 million acres of agricultural land, 4½ million acres are under crops and grass, the rest being rough hill grazings (about 11 million acres) or land only able to support deer and game. The chief crop is oats; next come root crops for stock-feeding; potatoes, especially seed potatoes, and barley are also important crops. The wheat area is small. In the south-west, dairying is the chief branch of the industry, while cropping and fattening cattle are carried on mainly in the east. The rearing of stock (especially sheep) is of importance in the hill areas.

In *Northern Ireland* the total of 2·97 million acres of agricultural land in 1953 included 2·28 million acres under crops and pasture. The land is intensively farmed, the chief crops being potatoes, oats, flax, and ryegrass for seed. An average of about 80 per cent of Northern Ireland's agricultural income is derived from livestock and livestock products.

Horticulture accounts for one-sixth of the value of the agricultural output of the United Kingdom. The war-time need for self-sufficiency and the shortage of other foods led to a great increase in the acreage under vegetables, but return to a more normal diet and the reopening of oversea sources of supply have brought about some reduction of the area, though it is still much greater than before the war, due largely to the great increase in the area of peas for harvesting dry. The acreage under fruit (see Table 18) remains at about the pre-war level, but the crops produced on that area have been increased by about 60 per cent.

Although the commoner vegetables and fruit are grown to some extent all over the country, there is a tendency for certain crops to be concentrated in specialized areas, e.g., broccoli in Cornwall and Kent, carrots and rhubarb in Yorkshire, asparagus and plums in Worcestershire, cherries in Kent, apples in Kent and Hereford, onions in the Fen district, early strawberries in Hampshire, maincrop strawberries in Kent and Norfolk, and tomatoes under glass in the Lea Valley. Early vegetables are supplied from the Channel Islands.

During the war, the area devoted to flowers was drastically reduced by official controls. It has taken the nursery industry some time to recover from the setback but the acreage is now about the same as before the war. Early spring flowers are grown in the Scilly Isles.

Smallholdings and Allotments

There are some 20,000 smallholdings provided by county councils and county borough councils in England and Wales and by the Minister of Agriculture, Fisheries and Food. Of these, some 11,000 are capable of providing a full-time occupation for the tenant. These smallholdings are let only to people with practical experience in agriculture, preferably agricultural workers, with the object of affording them an opportunity to become farmers on their own account. Loans may be made to the tenants of up to 75 per cent of the working capital they require.

Of the smallholdings provided by the Minister of Agriculture, Fisheries and Food, approximately 1,000 situated on 18 different estates are managed on the Minister's behalf by the Land Settlement Association Limited, which was originally formed in 1935 to develop smallholdings for unemployed men from industrial areas. The Association provides centrally on each estate various services for the tenants' use. These services include the supply of agricultural stores and requisites, the operation of a machinery pool, and the packing and marketing of produce.

The Welsh Land Settlement Society, which was also formed to assist in the settlement on the land of unemployed industrial workers, created one estate similar to those of the Land Settlement Association and a number of profit-sharing farms, which still operate.

Land settlement in Scotland has always been carried out by the central Government, which now owns and maintains some 452,000 acres of Land Settlement Estates with over 4,200 holdings.

There are also rather more than one million allotments in the United Kingdom; most of these are allotment gardens[1] and about half are permanent statutory allotments provided by local authorities who have under the Allotments Acts the duty to provide allotments, if practicable, wherever there is a need.

The growing of vegetables and fruit and the keeping of small livestock such as poultry, rabbits, bees, pigs and goats by gardeners and allotment-holders is widespread in Britain. Voluntary organizations exist to provide advice, guidance and trading facilities and generally to assist persons interested in the movement. The *National Council for Domestic Food Production*, formed in 1951 by the Minister of Agriculture, co-ordinates the work of these organizations and encourages the development of domestic food production as a form of self-help, providing social and recreational benefits.

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[1] An allotment garden is a piece of land not bigger than a quarter of an acre which is wholly or mainly cultivated by the occupier for the production of vegetable or fruit crops for consumption by himself or his family.

Scottish Crofts

Crofters are tenant farmers resident in one of the seven Scottish counties known as crofting counties—Argyll, Caithness, Inverness, Orkney, Ross and Cromarty, Sutherland, and Shetland—whose holdings are each rented at less than £50 a year and are not more than 50 acres in area. In 1947 there were in these counties 20,918 crofts out of a total of 23,209 separate holdings. In 1952–53 the value of the annual production of these crofts was £7.9 million, about half the total agricultural output of the seven counties and 5.66 per cent of that of Scotland as a whole. The problems of the crofting areas—such as declining population and falling agricultural production—led to the appointment of a Commission of Inquiry in 1951. In its report, published in 1954 (*Cmd.* 9091), the Commission recommended the setting up of a Crofters Commission to regulate crofting in the crofting counties. The recommendations were accepted by the Government, which passed the Crofters (Scotland) Act, 1955, under which a Crofters Commission (see p. 154) was appointed and started operations on 1st October 1955.

Changes since 1870

In the middle of the nineteenth century Britain was largely self-sufficient in agricultural production. Then, wool, grain and, later, meat—all produced cheaply from virgin lands overseas—were increasingly imported, and, as a result, the farming industry had to adapt itself to the changing conditions by concentrating much more on milk, eggs, pigs and horticultural produce. These changes in production and types of farming in successive attempts to meet changes of fortune resulted in a continuous trend away from an agricultural industry based mainly on grain to one based more on livestock and livestock products, and, among crops, an increasing emphasis on vegetables.

The arable area in Britain declined continuously from 1872 until 1939, except during the first world war; the meat, dairy and poultry industries becoming increasingly dependent on imported feedingstuffs. The outbreak of the second world war was, however, followed by an immediate reversal of farming practice, for shortage of shipping space for imports demanded a greatly increased home production of crops for direct human consumption such as wheat and potatoes, largely at the expense of livestock and livestock products other than milk. The post-war world food shortage and Britain's balance of payments problems made it necessary for Britain to maintain increased grain production, but since 1947 an expansion of output of livestock, livestock products and animal feedingstuffs has been encouraged concurrently with the maintenance of a high level of production of grain and other crops.

Recent Trends

Recent trends in agricultural policy have resulted in greater emphasis on stock-rearing for meat and less stress on further increases in milk production.

The use of agricultural land for the various crops and the numbers of livestock on farms in the United Kingdom since 1924 are shown in Tables 18 and 19 overleaf.

PRODUCTION

Before the second world war, Britain produced about 31 per cent of its food supplies (in terms of calories for human consumption). By 1954 this had risen to nearly 42 per cent. The comparable figures in terms of values are 36 per cent pre-war and about 49 per cent in 1953–54. Imports of food and feedingstuffs accounted

TABLE 18

USE OF AGRICULTURAL LAND IN THE UNITED KINGDOM 1924–54

Million acres

	1924	1939	1944	1951	1952	1953	1954
Wheat	1·6	1·8	3·2	2·1	2·0	2·2	2·5
Barley	1·5	1·0	2·0	1·9	2·3	2·2	2·1
Oats	3·3	2·4	3·7	2·9	2·9	2·9	2·6
Mixed corn	0·1	0·1	0·4	0·8	0·8	0·8	0·6
Rye	0·1	0·01	0·1	0·1	0·1	0·1	0·04
All cereals	6·6	5·3	9·4	7·8	8·1	8·2	7·8
Potatoes	0·7	0·7	1·4	1·1	1·0	1·0	1·0
Sugar beet	0·02	0·3	0·4	0·4	0·4	0·4	0·4
Fodder crops	1·7(*a*)	1·3	2·0	1·5	1·5	1·6	1·5
Fruit	0·3	0·3	0·3	0·3	0·3	0·3	0·3
Vegetables	0·1	0·3	0·5	0·4	0·4	0·4	0·4
Other crops	1·0	0·2	0·4	0·3	0·4	0·3	0·3
Bare fallow	0.4	0.4	0.2	0.4	0.3	0.2	0.3
Total tillage	10·8	8·8	14·6	12·2	12·4	12·4	12·0
Temporary grass ..	4·7	4·1	4·7(*b*)	5·8	5·7	5·7	5·9
Total arable land ..	15·5	12·9	19·3	18·0	18·1	18·1	17·9
Permanent grass ..	17·6	18·8	11·7	13·1	13·1	13·0	13·2
TOTAL: *Crops and Grass*	33·1	31·7	31·0	31·1	31·2	31·1	31·1
Rough Grazings	15·1	16·5	17·0	17·1	17·0	16·9	16·8

Source: *Monthly Digest of Statistics.*

(*a*) Excluding beans and peas which, in each of the years, amounted roughly to 0·15 million acres, and which are here included in 'other crops'.

(*b*) Includes lucerne, shown under 'other crops' and included in tillage in other years.

TABLE 19

LIVESTOCK IN THE UNITED KINGDOM 1924–54 (JUNE)

Millions

	1924	1939	1944	1951	1952	1953	1954
Dairy cattle	3·4	3·9	4·4	4·5	4·5	4·5	4·6
Other cattle	4·4	5·0	5·1	6·0	5·8	5·9	6·2
Sheep	22·2	26·9	20·1	20·0	21·7	22·5	22·9
Pigs	3·6	4·4	1·9	3·9	5·0	5·2	6·2
Poultry	n.a.	74·4	55·1	94·3	95·0	92·1	83·6

Source: *Monthly Digest of Statistics.*

n.a. = figures not available.

for 45 per cent by value of total imports pre-war and about 40 per cent in 1954. The percentages by weight of total supplies of certain foods provided by home production in post-war years compared with the pre-war average are shown in Table 20.

TABLE 20

PERCENTAGE OF TOTAL UK FOOD SUPPLIES PROVIDED BY HOME AGRICULTURE

	Pre-war average	1945	1951	1954
Wheat and flour for human consumption (as wheat equivalent)	12	32	24	28
Oils and fats (crude oil equivalent) . .	16	7	10	16
Sugar (refined value)	18	32	23	21
Carcass meat and offal	51	50	65	67
Bacon and ham (excluding canned imports)	29	32	48	46
Butter	9	8	4	10
Cheese	24	10	18	38
Condensed milk	70	59	63	97
Dried milk (whole and skimmed) . .	59	49	43	50
Shell eggs	71	87	86	86
Milk for human consumption (as liquid)	100	100	100	100
Potatoes for human consumption . .	94	100	97	96

Source: Ministry of Agriculture, Fisheries and Food.

In 1947 plans were made to secure an increase in the volume of annual agricultural net output to about 50 per cent above the pre-war level by 1952. This objective was in fact achieved, the official index number (pre-war average =100) being 153 for 1952–53. A further objective to raise this to at least 160 by 1956 was announced in 1952 (*Cmd.* 8556). This objective was reaffirmed in 1954 (*Cmd.* 9104) and in 1955 (*Cmd.* 9406) although it is now unlikely that it will be achieved until two or three years later. Still further expansion depends on the continual success of the industry in reducing costs and improving quality, particularly of livestock products, and so reducing the cost to the Exchequer of carrying out the guarantees under the Agriculture Act (see p. 149). The index number for 1954–55 is provisionally given as 153, compared with 155 for 1953–54. The decline was due to particularly bad weather during the year. Table 21, overleaf, shows the trend in production of some of the main products since the war.

The Government continues to look to the following means of increasing the net output of the industry:

(1) more beef production; and more mutton and lamb (particularly if unit costs of production can be reduced);

(2) continued and steady improvement in crop yields;

(3) a saving in the heavy bill for feed imports by:

  (*a*) more ley farming, improved management and use of grass, and

  (*b*) skill and economy in the use of concentrated feedingstuffs.

At the 1955 Annual Review (see pp. 149–51) the Government discouraged further increase in the output of pigmeat by reducing the guarantee.

TABLE 21

Agricultural Production in the United Kingdom

Product	Unit	Pre-war average	1946–47 (*a*)	1952–53 (*a*)	1953–54 (*a*) *provisional*	1954–55 *forecast* (*a*) (*b*)
Crop Production:						
Wheat	'000 tons	1,651	1,967	2,307	2,664	2,790
Rye	,,	10	39	50	66	39
Barley	,,	765	1,963	2,334	2,521	2,249
Oats	,,	1,940	2,903	2,772	2,821	2,416
Mixed corn ..	,,	76	350	830	845	554
Potatoes ..	,,	4,873	10,166	7,848	8,260	7,201
Sugar beet ..	,,	2,741	4,522	4,236	5,275	4,623
Livestock Products:						
Milk	mill. gals.	1,563	1,665	2,053	2,170	2,177
Eggs (*c*)	'000 tons	385	322	494	526	532
Beef and veal ..	,,	578	537	583	637	672
Mutton and lamb	,,	195	141	172	176	183
Pigmeat (*c*) ..	,,	435	208	589	606	720
Wool (clip) ..	,,	34	27	31	33	34
Index of net agricultural output:						
Agricultural holdings (*d*) ..	—	100	119	151	155	152
Total (*c*) ..	—	100	124	153	155	153

Source: *Cmd.* 9406.

(*a*) Years beginning 1st June.

(*b*) These forecasts were prepared in February for the Annual Review 1955. They are subject to revision, and in the case of meat it is now clear that the final figures will be considerably higher.

(*c*) Includes estimated production of eggs, pigmeat and other output from gardens, allotments, pig clubs, and other small producers.

(*d*) Holdings of one acre and above (or over quarter acre in Northern Ireland). Excludes output of gardens, allotments, pig clubs, etc.

GOVERNMENT POLICY

The severe agricultural depression which followed the fall in the general price level after 1920 resulted in 1931 in the beginning of a programme of financial assistance to agriculture, including tariffs, subsidies and quotas, which had a stabilizing effect on the prices of grain, cattle and milk, developed the sugar beet industry and encouraged cultivation of sub-marginal land (land which it is not profitable to cultivate).

Commodity commissions were set up for wheat, sugar, livestock and bacon. These were Government-appointed semi-independent organizations for administering Exchequer subsidies or other forms of direct financial assistance for the production of the commodity to which they related. In addition, to enable the home producer to regulate the marketing of his produce, the Agricultural Marketing Acts of 1931 and 1933 provided for the establishment of producer-controlled commodity marketing boards in Great Britain, and by September 1939 there were in operation eight such boards concerned with the marketing of the following products—potatoes, hops, pigs (for bacon), bacon, and milk (four boards).

In Northern Ireland the Agricultural Marketing Act (Northern Ireland), 1933, empowered the Ministry of Agriculture to frame schemes for regulating the marketing of agricultural products and for the establishment of marketing boards.

During the war and the post-war years agriculture was closely controlled by the State and the functions of marketing boards, commodity commissions and similar bodies were largely suspended. Farmers' prices were fixed by the State for the principal agricultural products, the majority of which were purchased by the State. This was coupled with close State control of food imports, many of which were bought on Government account, the stabilization of food prices by means of subsidies, and a rigid system of food rationing for most of the principal food products. In addition the State exercised a close supervision over the level and efficiency of agricultural production.

In 1947 the Agriculture Act was passed which provided the main basis of post-war agricultural policy in England and Wales and the controls to implement it. Similar Acts for Scotland and Northern Ireland were passed in 1948 and 1949 respectively. The implementation of the Agriculture Acts is the responsibility respectively of the Ministry of Agriculture, Fisheries and Food,[1] the Department of Agriculture for Scotland (see p. 56), and the Ministry of Agriculture in Northern Ireland (often known collectively as the Agricultural Departments).

The principles of the 1947 Act were that the Government would provide the industry with a system of guarantees which would ensure 'a stable and efficient agricultural industry capable of producing such part of the nation's food as in the national interest it is desired to produce'. In return for this, the Act and its equivalents in Scotland and Northern Ireland gave the Government power to insist on a minimum level of efficiency. Farmers and landowners are respectively required to maintain a reasonable standard of husbandry and estate management. If they do not do so, the Agricultural Ministers are able to issue directions, and in the last resort to require a change of occupation or ownership (see p. 154).

The Acts provide for the holding of an Annual Review, usually in February, of the economic condition and prospects of the agricultural industry. This is conducted by the Agricultural Departments with the farmers' representatives. In the light of the review, price guarantees are determined for livestock and livestock products for the next year and for crops to be harvested in the year following that in which the review is held. The products concerned are: wheat, barley, oats, rye, potatoes, sugar beet, fat stock, milk, eggs, and (since 1950 only) wool. Minimum prices for livestock and their products are also fixed for two to four years ahead. Provision is also made for special reviews to be held at any time if the Ministers consider that there has been a sudden substantial change in costs or in other conditions. There are powers to relate guaranteed prices to the levels of output of particular products. These were used for the first time in 1954 for milk.

As world supplies of food and Britain's own trading position have improved in the last few years, the Government has gradually restored both the import of food and all domestic trading in food to private business. All consumer rationing of food ended in Britain on 3rd July 1954. But the basic policy of the Agriculture Act, 1947, including guarantees to farmers, remained. In the words of the White Paper (*Cmd.* 8989) of November 1953:

'Direct Government purchase of home-produced food can no longer be the sole

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[1] The Ministry of Agriculture and Fisheries was combined with the Ministry of Food on 1st April 1955. For an account of the functions of the new Ministry see p. 42.

> or main instrument for implementing the Government's guarantees to farmers. But the Government firmly adheres to the principles of the Agriculture Act, 1947, and fully accepts its obligation to make alternative arrangements to secure a stable and efficient agriculture.'

Arrangements appropriate to each commodity have been devised in connection with price guarantees and marketing organization.

Price Guarantee Arrangements

The guarantees since the 1954 Review are being given in four different ways:

1. *Fixed guarantee prices*, the general form of guarantee before the return to free markets, continue to apply to sugar beet. The guarantees for milk and wool are operated through the Marketing Boards. Guarantees of the Board's receipts enable the Boards to fix producers' prices in advance after making allowance for wholesale marketing costs. For wool, there is an arrangement for receipts in excess of the guarantee to be placed in a long-term price stabilization fund; and for milk the guaranteed price is limited by reference to a standard quantity so that if total sales off farms exceed this, the effective level of the guaranteed price per gallon is reduced. The guarantee arrangements are designed to encourage the Boards to market efficiently: for example, the price guaranteed for milk is subject to slight adjustment according to the level of price actually realized.
2. *Minimum or support prices*, below which the Government pays the difference on sales taking place, apply to eggs and are designed to protect the farmer from low prices resulting from periodic gluts. Potatoes from the 1955 harvest have been dealt with in a similar way, but in Great Britain the support price arrangements are operated on behalf of the Ministers by the Potato Marketing Board.
3. *Deficiency payments schemes*, under which the Government establishes the standard price and pays each producer the deficiency (if any) between this price and the average realized market price multiplied by the volume of his sales, apply to wheat, rye, barley and oats, but for barley and oats the price deficiency is converted into a payment per acre. The method also applies to fat cattle (except fat cows), fat sheep, fat lambs and fat pigs. The guarantee is collective; it safeguards the incomes of producers as a whole and the individual producer may get more or less than the standard price (but see (4) below). Otherwise standard prices are similar in principle to minimum prices, except that they have been fixed high enough to give a more extensive type of protection.
4. *Guaranteed individual prices*, which guarantee a minimum price for each individual transaction additional to the collective guarantee, are applicable to fatstock (except fat cows).

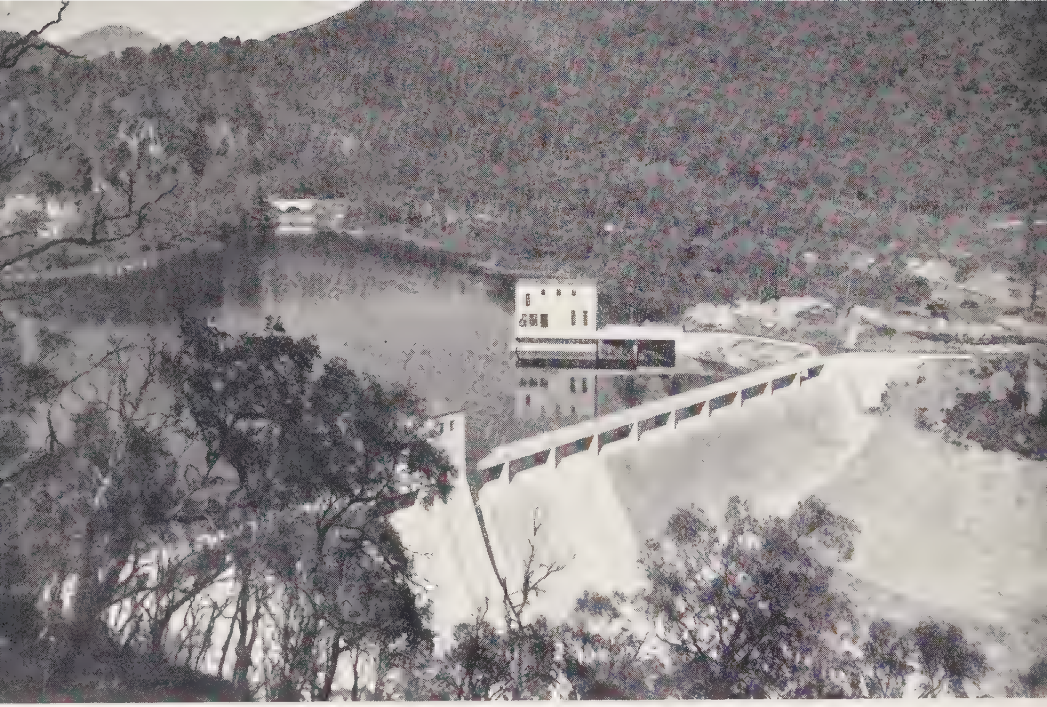
At the 1954 Review it was realized that the effects of the changes made could not be forecast precisely, since in a freer economy farmers' receipts would depend less on fixed prices and more on sales in a competitive market supplemented when necessary by guarantees. The White Paper (*Cmd.* 9104) stated that while net agricultural income might be somewhat lower than it then was, the Government was satisfied that the guarantees assured the industry a satisfactory level of income in accordance with the 1947 Act. If the industry were to maintain its net income it would have to reduce costs further and sell its produce competitively and in relation to world food prices, and so continue to prosper with less assistance from the Exchequer. At the 1955 Review it was revealed (in *Cmd.* 9406) that costs (mainly

1. Hereford
2. Beef Shorthorn
3. Aberdeen Angus
4. British Friesian
5. Ayrshire

6. Jersey
7. Red Poll
8. Large White
9. Suffolk
10. Hampshire Down

11. Southdown
12. Romney Marsh
13. Border Leicester-Cheviot
14. Shropshire
15. Cheviot

Britain has long been noted for its exports of pedigree livestock (see pp. 157–8). Some famous breeds of cattle (both beef and dairy breeds), sheep and pigs are shown here.



Benvean Dam, part of the North of Scotland Hydro-Electric Board's Glen Affric scheme.

The Dounreay Fast Reactor Power Station Project (see p. 176): a photograph of the model and diagram of the reactor. The heat is removed from the reactor core by a liquid metal which is surrounded by inert gas. The coolant passes to the heat exchanger and there, by heating water, produces steam which drives the steam turbines. These then rotate the generators and produce electricity.

A. Control plant and store for fuel elements.

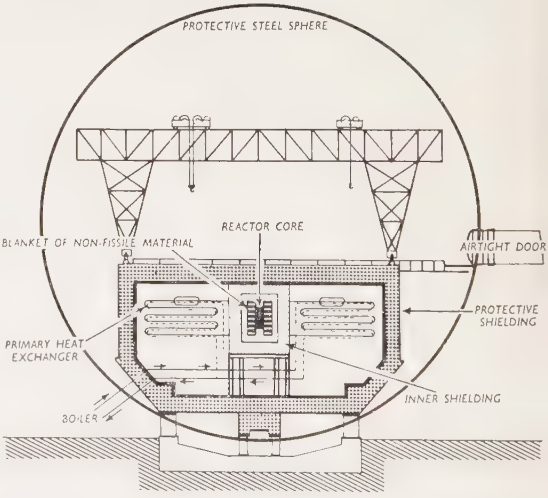
B. Reactor in airtight sphere.

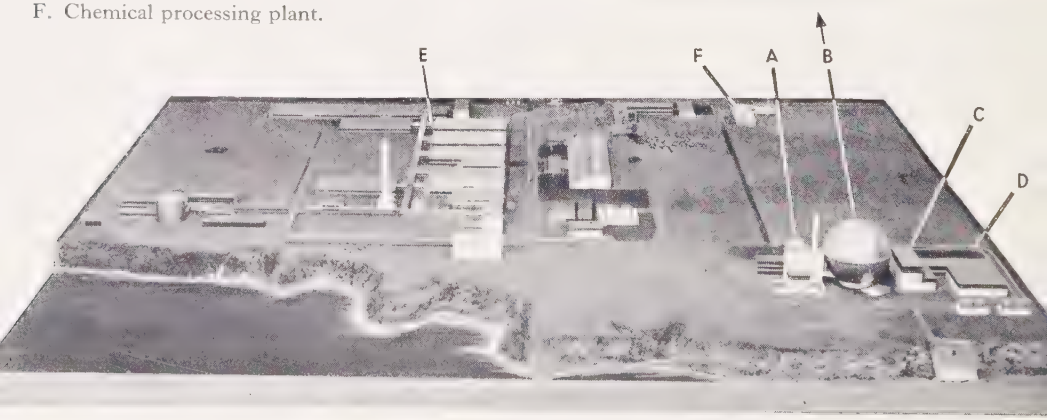
C. Heat exchanger building.

D. Turbo-generator building.

E. Administrative buildings, workshops, stores, etc.

F. Chemical processing plant.


PROTECTIVE STEEL SPHERE
REACTOR CORE
BLANKET OF NON-FISSILE MATERIAL
AIRTIGHT DOOR
PROTECTIVE SHIELDING
PRIMARY HEAT EXCHANGER
INNER SHIELDING
BOILER



of labour and feedingstuffs) had risen by £45 million and net farm income had fallen from £320·5 million to £280 million. This fall was, however, due entirely to adverse weather conditions. When adjusted for normal weather conditions net income was estimated at £312 million for 1954–55, compared with £305·5 million (similarly adjusted) for 1953–54.

Marketing Organization

The marketing organization comprises marketing boards set up under the Agricultural Marketing Acts and certain other arrangements.

Marketing Boards under the Agricultural Marketing Acts, 1931 *to* 1949. Marketing Boards are producers' organizations with compulsory powers to regulate the marketing of particular agricultural products by producers. The schemes under which they are constituted and operated must be approved by Parliament and confirmed by poll of the producers concerned. A Board must normally consist of from eight to 24 members; not fewer than two and not more than one-fifth of the total number must be appointed by the Minister.

In general, the Government has declared its willingness to facilitate the setting up of producer marketing boards although each commodity is considered separately on its merits. In appropriate cases, the Government is prepared to allow the price guarantees to be operated through marketing boards.

Wool is marketed through the Wool Marketing Board and marketing powers were restored to the Milk Marketing Boards on 1st April 1954, although for as long as there remains an element of consumer subsidy the Government will continue to be responsible for approving prices and distributive margins for milk. A Potato Marketing Scheme for Great Britain came into force in May 1955. It re-enacts and revises the pre-war scheme and has the same objectives, the stabilization of the market and the improvement and quality of marketing.

The Hops Marketing Board is responsible for marketing all hops, while the Tomato and Cucumber Marketing Board has only limited regulatory powers.

The future of the Pigs, Bacon and Milk Products Marketing Boards, which have been suspended under Defence Regulations since the outbreak of war, is under consideration.

In Northern Ireland schemes for the marketing of two products, pigs and milk, are at present in operation.

Consumers' Committees to represent the consumers' interests in regard to the operation of Marketing Schemes were reconstituted in December 1953. They had been set up in 1931 but did not meet during the war and immediate post-war years.

Other Arrangements. An interim scheme for eggs, whereby a National Egg Marketing Organization was set up to advise the Minister of Food on orderly marketing arrangements after decontrol on 26th March 1953, is expected to give way to more permanent machinery in the form of a Marketing Board.

Since 1st July 1954, when Government purchase of home produced fatstock ended, farmers have been able to sell their fatstock by auction at approved fatstock markets, by private treaty and by grade and deadweight.

The Ministry of Agriculture, Fisheries and Food administers direct deficiency payments for cereals.

The guarantees under the Agriculture Acts do not apply to horticultural products. The Government appointed a Committee in March 1955 to investigate present methods of marketing horticultural products and to recommend improvements.

TABLE 22

Estimated Subsidies, Production Grants and Trading Deficits 1955–56

	£ million	
Subsidies and trading deficits wholly attributable to guarantees under the Agriculture Act, 1947		
Cereals—		
Wheat and rye	26·0	
Barley	10·4	
Oats and mixed corn	12·5	
Home produced eggs	29·3	
Fatstock—		
Cattle	1·8	
Sheep	3·5	
Pigs	76·5	
Milk	28·9	
Potatoes	3·9	
Wool	1·0	
		193·8
Production grants and subsidies		
General fertilizer subsidy	12·8	
Lime subsidy	7·0	
Grants for ploughing up grassland	5·6	
Field drainage and water supply grants	2·9	
Grants for improvement of livestock rearing land	2·2	
Marginal production assistance grants	2·1	
Bonus payments under the Tuberculosis (Attested Herd) Scheme	10·0	
Livestock: improvement of breeding	0·1	
Calf subsidy	7·8	
Hill sheep and hill cattle	2·6	
		53·1
Administration overheads		6·0
Total Subsidies and Grants for Agriculture		252·9
Bread subsidy and welfare schemes		
Bread subsidy		40·7
Welfare foods		5·3
Welfare milk		31·5
Total		77·5
Residual trading and other commodity arrangements		
Residual trading		8·8
Guaranteed prices for Australian dried fruit and meat		0·5
British Sugar Corporation Ltd.—Estimated net receipts in 1955–56		Cr. 2·0
		7·3
Total Subsidies, Production Grants and Trading Deficits		337·7

Food Subsidies and Production Grants

The cost of these guarantees to the agricultural industry is included in the general subsidies on certain basic foods, whether home produced or imported.

Total subsidies on food (home produced and imported combined) for 1954–55 are estimated to amount to £339 million. The cost of these subsidies in 1955–56 has also been estimated by the Departments concerned to amount to about the same figure (see Table 22).

THE EXECUTION OF POLICY

Besides providing financial stability through guarantees to farmers (see p. 150) the State promotes efficiency by means of various facilities, safeguards, schemes and services. While the Government thus provides every incentive to the farmer to farm efficiently, it reserves the right, as a corollary, to take disciplinary action if he fails to do so.

County Agricultural Executive Committees

In England and Wales, County Agricultural Executive Committees (CAECs) were set up under the Agriculture Act, 1947, with the duty of promoting agricultural development and efficiency. These superseded the County War Agricultural Executive Committees set up at the outbreak of war in 1939. Each committee consists of 12 members. Five are appointed directly by the Minister, and seven from panels nominated by the interests concerned, three being farmers, two landowners and two workers. One of those directly appointed is a member of the county council; the others are persons with special qualifications or with experience of local agriculture. The committees are represented in areas within the county by District Committees. The system of voluntary part-time liaison officers, to interpret Government policy to the CAECs, was revived in 1952.

The arrangements differ in Scotland and Northern Ireland. In Scotland, agricultural policy is carried out under the Secretary of State for Scotland through the Department of Agriculture and 11 Area Agricultural Executive Committees. In Northern Ireland each county has a Committee of Agriculture which acts mainly in an advisory capacity to the Ministry of Agriculture. An Agricultural Executive Officer working directly under the Northern Ireland Ministry of Agriculture is responsible for carrying out the Government's agricultural policy in each county.

Security of Tenure

Successful farming is a long-term business and adequate security of tenure is essential to the efficiency of the good farmer, especially where, as in Britain, a high proportion of farmers are tenant farmers.[1] Such security is ensured by legislation but at the same time the Government has power to insist on good farming and to discipline bad farmers, even if owning their land.

In England and Wales the Agricultural Holdings Act, 1923, required at least twelve months' notice to be given to quit an agricultural holding and gave the tenant a right to compensation for disturbance on leaving his holding; a tenant had no statutory right of contesting the notice to quit. The Agricultural Holdings Act,

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[1] Returns made in 1950 for the purpose of the United Nations Food and Agriculture Organization's World Census showed that about 36 per cent of holdings in England and Wales were wholly owned by the occupier; 49 per cent were wholly rented and 15 per cent were part-owned and part-rented. The proportion of owner-occupiers is substantially higher in the case of holdings of under five acres but does not vary appreciably from size group to size group in the case of the larger holdings.

1948, gave the tenant the right in normal circumstances to have the matter referred to the County Agricultural Executive Committee (acting for the Minister); either tenant or landlord could then appeal against the committee's decision to an Agricultural Land Tribunal (see below). The Scottish Act of 1949 applied similar provisions to Scotland, with a right of appeal to the Scottish Land Court. There are no farm landlords in Northern Ireland, where, under various Land Acts passed between 1870 and 1925, every farmer is either the owner, or is in process of becoming the owner, of his holding.

But under the Agriculture Act, 1947, the Minister of Agriculture has the power to place under supervision an owner or occupier considered guilty of bad estate management or bad husbandry. This power he has delegated to the County Agricultural Executive Committees. If the owner or occupier fails to show satisfactory improvement in his standard of management or of husbandry after twelve months under supervision, or earlier if he has failed to comply with a direction, he may be dispossessed. Dispossession of an owner means compulsory purchase. Dispossession of an occupier means that his occupation is terminated and the new occupier has to be approved by the Committee. An owner or occupier may appeal to an Agricultural Land Tribunal against a proposal that he should be dispossessed.

Agricultural Land Tribunals

Agricultural Land Tribunals, which are independent bodies each consisting of a chairman appointed by the Lord Chancellor (usually for three years), and two members representing landowners and farmers appointed by the chairman from panels drawn up by the Lord Chancellor after consulting representative bodies, were originally set up in England and Wales in 1948 under the Agriculture Act, 1947. Their task is to hear and to decide cases in which decisions and proposals (generally notices to quit or proposals to dispossess) of the Minister of Agriculture, or of the County Agricultural Executive Committees acting on his behalf, are referred to them at the request of one of the parties concerned. Under new regulations made in 1954 a Tribunal may, at the request of any interested party or at the direction of the Court, refer questions of law to the High Court of Justice.

The Crofters Commission

On 1st October 1955 a Crofters Commission, set up under the Crofters (Scotland) Act, 1955, began work at its headquarters at Inverness. The Act provides for a Commission, to be appointed by the Secretary of State for Scotland, which should consist of not more than six members, at least one of whom should speak Gaelic, and which should include members with a knowledge of crofting conditions. Its functions are to reorganize, develop and regulate crofting in the crofting counties of Scotland (see p. 145), to promote the interests of crofters there and to keep under review matters relating to crofting. In particular, when a croft becomes vacant, the landlord is required to notify the Crofters Commission and to advise it of his proposals for letting the croft. The Commission has power to approve or veto these proposals, to require that a vacant croft be let as an enlargement to another croft, and generally to ensure that all vacant crofts are let in the best interests of the crofting communities. For the same purpose the Commission has power to dispossess absentee tenants who are, however, able to retain their croft houses in certain circumstances. Aged persons who are unable to cultivate their land may, with the Commission's approval, give up their land while still remaining in occupation of their houses. The Commission has special power to carry out the reorganization of derelict or decaying 'townships' if a majority of the resident crofters are in favour of the scheme. Such a scheme provides for the re-allocation of the land in the township in a way which, in the Commission's opinion, would lead to the proper and efficient use of the land and the general benefit of the township. The Act confers on the Commission powers for ensuring that crofters work their crofts according to the rules of good husbandry. The Commission may act as agents of the Secretary of State for Scotland in the administration of schemes for loans and grants for the development of agricultural production on crofts and will be responsible for approving regulations governing the use of common grazings.

These powers are designed to enable the Crofters Commission to ensure that the fullest use is made of crofting lands. The Commission of Inquiry (see p. 145) recognized that developments in other directions were necessary to ensure the economic well-being of the crofting communities. Consistent with this, the Act has conferred on the Crofters Commission the specific duty of collaborating with other bodies in carrying out measures for the economic development and social improvement of the crofting communities.

The Agricultural Land Commission

The Agricultural Land Commission was set up under the Agriculture Act, 1947. Its functions are to manage and to farm lands vested in the Minister of Agriculture, Fisheries and Food, or land for which he has become responsible, and to advise and assist the Minister in matters relating to the management of agricultural land. The Commission's functions in Wales are delegated to the Welsh Agricultural Land Sub-Commission. At 31st March 1954, 227,000 acres were under the control of the Commission and almost all of this land was let to private farmers. Nearly half of the land was agricultural land intermixed with other land used by the Forestry Commission. About one-sixth consisted of disused airfields and other land formerly held by various Government Departments; another sixth comprised an estate accepted by the Government in lieu of death duties; and the remainder was mostly land acquired by the Minister to ensure its full and efficient use for agriculture. Early in 1954 the Minister decided, after consultation with the Commission, to sell land managed by it wherever that could suitably be done, and sales are in progress.

In Scotland, the management of lands vested in the Secretary of State and the duty of advising him on management matters are carried out by the Department of Agriculture.

The Agricultural Land Service

This Service was formed in 1948 to take over the duties of the pre-war Land Commissioner Service and also those of the Rural Land Utilization Officers appointed during the war. The main functions of the Service are:

(1) to advise owners of agricultural land, whether landlords or owner-occupiers, on estate management matters, including farm buildings and other fixed equipment;

(2) to give professional advice to and carry out the instructions of the Minister, the Agricultural Land Commission and County Agricultural Executive Committees on all matters relating to agricultural land, including: the purchase and sale of land by the Minister; the management of land owned by or in the possession of the Minister; the exercise of the Minister's powers for securing good estate management and good husbandry and of his functions under the Agricultural Holdings Act, 1948; the provision of grant-aid under the Hill Farming and Livestock Rearing Acts and of marginal production assistance; and the provision and management of smallholdings and allotments by local authorities;

(3) to advise the Minister and local planning authorities on the agricultural aspects of planning and the release of agricultural land for other development including afforestation.

In Scotland similar duties are carried out by officers of the Department of Agriculture.

Agricultural Advisory Services

Free technical advice on all agricultural and horticultural matters is available to every farmer and grower in England and Wales through the Ministry of Agriculture's *National Agricultural Advisory Service* (NAAS).

Every county has a County Agricultural Officer in charge of advisory work and is divided into districts in each of which there is a District Advisory Officer who acts as a general adviser to farmers. The District Officer can call on an extensive system of specialist advisers. Advisers in livestock husbandry, milk production, farm machinery, poultry husbandry, and horticulture are available in each county; at the 12 provincial centres and sub-centres there are senior advisers in these subjects and in crop and grassland husbandry, besides specialists in animal nutrition, bacteriology, soil chemistry, plant diseases, and plant pests. These centres are equipped with laboratories for the analysis of soils and feedingstuffs, and for the diagnosis of crop pests and diseases. The advisers work in close consultation with the Ministry's Plant Pathology Laboratory at Harpenden, Hertfordshire.

In Scotland the advisory services, similar in scope to the NAAS, are based on the three agricultural colleges. Northern Ireland has its own separate advisory service which is closely linked with the research and experimental divisions (see p. 160).

Facilities are provided at the NAAS Experimental Farms and Horticultural Stations in England and Wales and at Agricultural College Centres in Scotland for field-scale extensions of research work and investigations of local problems. Experiments are also carried out at provincial advisory centres and on commercial farms.

The *Agricultural Improvement Council* (AIC) for England and Wales and the *Scottish Agricultural Improvement Council* advise the Agricultural Departments on the application of the results of scientific investigation to farming practice and on problems requiring investigation. The AIC is also concerned with the problems of estate management including buildings and fixed equipment.

Loan Facilities

In England and Wales long-term finance for agricultural properties is provided by the *Agricultural Mortgage Corporation*,[1] established under the provisions of the Agricultural Credits Acts, 1928 and 1932, which is empowered to grant long-term loans on the security of properties (*a*) on first mortgage of agricultural land and (*b*) in respect of major improvements to agricultural land and buildings. The Corporation's funds are derived mainly from the proceeds of various issues of debenture stocks which are subscribed by the public and are repaid by the operation of sinking funds. The Corporation's reserves include a Guarantee Fund for which it may raise money under the Agricultural Credits Act, 1928, and the Agriculture (Miscellaneous Provisions) Act, 1944, in the form of interest-free loans from the Government up to a total of £2·5 million. In Scotland loans on favourable terms for agricultural purposes on the security of agricultural land in Scotland are granted by the *Scottish Agricultural Securities Corporation Limited*,[1] a limited company set up in accordance with the provisions of the Agricultural Credits (Scotland)

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[1] See also p. 292.

Act, 1929. Both the Corporations at present receive grants from the Treasury towards any deficit in their respective annual Profit and Loss Accounts.

Landowners in England and Wales may also obtain loans for the purpose of carrying out certain improvements to agricultural land and buildings from the *Lands Improvement Company*. The amount of the loan is charged on the land improved, in the form of a terminable rent-charge payable half-yearly for a period not exceeding 40 years. These improvement loans require the sanction of the Ministry of Agriculture, Fisheries and Food, but the Ministry does not itself provide the necessary funds.

Drainage and Water Schemes

The State makes substantial contributions towards the cost of land drainage and water supply in Britain. In England and Wales, for example, under various Acts, grants for farm drainage may be up to 50 per cent of the approved cost; for main river drainage they can range up to 80 per cent. Farm water supply grants are at the rate of 25 per cent of the approved cost where the connection is to a public main and 40 per cent where a private source is utilized. Separate legislation provides grants for these services in Scotland and Northern Ireland.

Crops and Grass

The aim of the Government is to see on each farm the most profitable balance between crop and grass production, with, for the country as a whole, the maintenance of a large arable acreage. Improved varieties and the use of new insecticides and fungicides contribute to a continued steady improvement in the yield of cereals.

Research at the Grassland Research Station and elsewhere has directly influenced agricultural practice in the production and use of grass. Improved management of both permanent grass and temporary grass leys and the more effective utilization of grass by means of ensilage or drying, together with the extended use of fodder crops, such as kale, assist the general objective of economy in the use of concentrated feedingstuffs.

Animal Husbandry

Britain is noted for its exports of pedigree livestock and since the end of the war there has been a marked recovery of the export trade in livestock of high quality.

Cattle. It is mainly the beef breeds (e.g., Shorthorns, Herefords, Aberdeen Angus) which have made a reputation overseas, but interest in British dairy stock is increasing. The rise in milk consumption since 1940 has resulted in concentration at home on dairy breeds, but in spite of the change-over to milk, many breeds have maintained the dual-purpose type of qualifications. In Scotland, while milk production has expanded, an even greater increase in numbers of beef cattle has taken place. Schemes for communal use of sires are in operation, with special schemes in the Highlands and Islands for the loan of bulls and rams (free of charge) to communities of smallholders. Cattle-rearing in the United Kingdom is encouraged by subsidies on calves reared for beef production and on hill cattle. Northern Ireland sends to Great Britain all fatstock which is surplus to its own requirements.

In order to ensure sound breeding, bulls have to be licensed. Artificial insemination (AI) centres, which are officially licensed, cover the whole of England and Wales. One calf in every two now born in England and Wales is the result of AI. Licensed centres are also operating in Scotland. In Northern Ireland AI is carried out at centres under the control of the Northern Ireland Ministry of Agriculture.

Under a plan introduced in October 1950 for the eradication of bovine tuberculosis on an area basis, areas containing about 1·8 million cattle have already been cleared. Others are being cleared. At the end of 1954 there were 132,000 attested herds (over 5 million cattle) in Great Britain. Northern Ireland has had an Attested Herds Scheme in operation since 1949.

Milk. Milk distributors in Great Britain must be registered and regulations lay down conditions under which milk is produced, handled, treated, stored and distributed. Subject to licence, milk may be sold under special designations—'Pasteurized', 'Sterilized', 'Tuberculin Tested' and also, in Scotland only, 'Certified'.

In areas specified by Orders it is obligatory to retail only specially designated milk, and milk which is not sold as Tuberculin Tested (or as Certified, in Scotland) must be heat-treated. Seventy per cent of the population live in specified areas.

Premiums are paid to producers of Tuberculin Tested milk and in respect of attested herds. An allowance is paid for pasteurizing or sterilizing milk.

In Northern Ireland milk has been paid for on a quality basis since 1934. The whole of Northern Ireland is now a 'safe milk' area.

Pigs. Boars also have to be licensed. A national pig recording scheme was introduced in England and Wales in 1954, and five boar progeny testing stations are being opened in Great Britain.

Poultry. To raise the standard of poultry stock there is a Poultry Stock Improvement Plan under which breeding stations and hatcheries are accredited and approved. In December 1954 breeding stock in the Plan amounted to approximately 3·07 million birds in England and Wales. Similar schemes operate in Scotland and Northern Ireland.

Control of Animal Diseases

The Diseases of Animals Act, 1950, gives the Government wide powers for the control of diseases. This control takes the form of compulsory slaughter (with payment of compensation) of animals and poultry affected by certain notifiable diseases (e.g., foot-and-mouth disease, and fowl pest) and the regulation of internal movements of stock. The Act and the Orders made under it also restrict the import of livestock and animal products. Research into animal diseases is carried on at several centres, including one at Pirbright, Surrey, which has the world's largest collection of foot-and-mouth disease virus.

Veterinary Services

There is a comprehensive State Veterinary Service which, in Great Britain, is administered by the Animal Health Division of the Ministry of Agriculture, Fisheries and Food and the Department of Agriculture for Scotland, and in Northern Ireland by the Northern Ireland Ministry of Agriculture. It consists of a field staff, research workers, and an investigation service which acts as a link between the field staff, veterinary surgeons in private practice and the research laboratories. In Scotland the investigation service is linked with agricultural teaching institutions and is not part of the Government service.

Improvement of Livestock Rearing Land in Upland Areas

The Hill Farming and Livestock Rearing Acts provide for grants for owners and occupiers of livestock rearing land in upland areas who wish to put their farms into sound working order. The object is to encourage the breeding and rearing of store cattle and store sheep (i.e. cattle and sheep for further fattening, not for immediate slaughter). Grants are at the rate of 50 per cent of the cost of work done. The total amount available for grant in the United Kingdom is £20 million and this can be increased by £2 million if necessary.

Marginal Production Schemes

Grants of up to 50 per cent of the cost can be given to occupiers of agricultural land to help them in farming operations which would be temporarily uneconomic without assistance but which would eventually enable them to increase production. About £1¼ million is being provided for this kind of assistance in 1955–56.

In Scotland, the object of these schemes is to increase productivity in upland and other marginal areas. Grants are available in certain conditions for cropping, direct re-seeding, regeneration of rough grazings, reclamation of derelict land, erection of temporary cattle shelters, temporary fencings and the construction of pit silos.

Mechanization

Mechanization has been one of the important causes of the increase in productivity of labour on the land in recent years, and one of the aims of the policy of guarantees to farmers under the Agriculture Act, 1947, was to give them an opportunity to invest in capital equipment. Such investment is also encouraged by the tax allowance on capital investment, which was increased in the 1954 Budget.

The estimated number of tractors (excluding small market-garden types) in the United Kingdom in 1925 was about 21,000, in 1939 about 55,000, and in 1954 about 400,000. Britain probably has the greatest tractor density in the world, one tractor per 45 acres of arable land. The increase in some of the newer agricultural machines has been even more notable; thus it is estimated that about 30,000 combined harvester-threshers were in use in the 1955 harvest; in 1939 there were only 150. As so often happens in agriculture the solution of one problem creates another; in a climate such as Britain's, the widespread use of these combines gives rise to the need for grain-drying and grain-storage facilities on a substantial scale. How to provide these on sound technical and economic lines is a problem which is receiving the closest attention by the many public and private interests concerned.

Considerable, but as yet not complete, success has attended intensive efforts to solve the problem of mechanizing the cultivation and harvesting of root crops—especially potatoes and sugar beet—which make so heavy a seasonal demand on labour. The problem continues to receive close attention.

Great strides have been made in the development of a wide range of equipment to assist the production of grass in the various forms—silage, hay and dried grass—upon which British farm livestock very largely depends.

The *National Institute of Agricultural Engineering* carries out research, testing and development work in agricultural engineering, and the Agricultural Machinery Advisory Committee, representative of the industries and Government Departments concerned, advises on requirements and on the supply of machinery and the development and production of new machines.

The home agricultural engineering industry in 1939 made goods to the value (ex works) of no more than £4½ million. In 1954 agricultural machinery output was valued at £108 million, over half of which represented exports (see also p. 190).

To meet the needs of farmers with insufficient equipment of their own, a substantial number of tractors as well as other agricultural machinery is maintained by County Agricultural Executive Committees in England and Wales and by private firms of contractors.

RESEARCH AND EDUCATION

Agricultural research in Britain is planned and co-ordinated by the Agricultural Research Council (see p. 377). This body has hitherto advised the Agricultural

Departments on scientific matters affecting the Agricultural Research Institutes (15 in England and Wales, and 8 in Scotland—listed in footnote,[1] p. 378), grant-aided by them, and itself controls 17 research centres (listed in footnote,[2] p. 378). In May 1955, the Government announced that the Council would in future be responsible for making grants to the independent research institutions in England and Wales, but not in Scotland, where this will remain the responsibility of the Department of Agriculture for Scotland. So far as England and Wales is concerned, the changed administrative arrangements, incorporated in an Agricultural Research Bill introduced in November 1955, will be completed by 1st April 1956.

Research and advice are combined in the Provincial Agricultural Economics Service of England and Wales. The service is attached to the universities and organized in ten economic advisory centres. In Scotland the Department of Agriculture has a Farm Economics Branch, and agricultural economists are on the staff of the three Agricultural Colleges. Similar arrangements exist in Northern Ireland.

The Ministry of Agriculture for Northern Ireland has its own research divisions investigating problems of animal and crop production. The research divisions work in close touch with the Ministry's county staffs, and also provide technical advisory services for the farmer. A very close link has been forged between the Queen's University of Belfast and the research divisions, since certain officers of the latter are professors and lecture in the University Faculty of Agriculture. Control is also exercised by the Plant Disease Division in the disinfection of all flax seed sown in Northern Ireland. A well-equipped Dairy Bacteriology Division keeps a watchful eye on the maintenance of the hygienic standards laid down for the production and handling of milk. At Hillsborough, in County Down, the Northern Ireland Agricultural Research Institute owns and operates a farm of some 500 acres. The Institute is endowed from public funds, and therefore the officers of the Ministry's Research Division are afforded facilities for carrying out their field experiments. Another 500 acres at Hillsborough are devoted to forestry and are controlled by the Forestry Branch of the Ministry of Agriculture. Thus there is a close integration of research, education and advisory work in these research divisions.

Eight universities in England and Wales (Cambridge, Durham, Leeds, London, Oxford, Nottingham, Reading, and the University of Wales), and three in Scotland (Edinburgh, Glasgow, and Aberdeen) provide degree courses in agriculture, which are of particular value for intending research workers, advisory officers, teachers and other specialists; in Northern Ireland a degree course is provided at Queen's University, Belfast. Two-year diploma courses are given at four Agricultural Colleges and at two of the Farm Institutes in England and Wales; three Agricultural Colleges in Scotland give two- to three-year diploma courses. These are more practical than degree courses and are intended mainly for farmers and farm managers. These courses are also a preparation for the national diplomas in agriculture, dairying, horticulture and poultry husbandry. In Northern Ireland there are three Agricultural Colleges. The Ministry of Agriculture maintains a Horticultural Centre at Loughgall, County Armagh, at which problems of special interest to Northern Ireland are investigated.

There are 33 Agricultural and Horticultural Institutes in England and Wales run by local education authorities. They provide courses in general agriculture, dairying, poultry, horticulture and poultry husbandry. Courses are usually for one year of 33 to 40 working weeks. Various short courses are run during the vacations, and local education authorities provide a wide range of part-time instruction which also meets the needs of the domestic producer.

The exchange of information on research in other Commonwealth countries takes place through the machinery of the Commonwealth Agricultural Bureaux and Institutes (10 Bureaux and two Institutes in the United Kingdom and one Institute in Canada, see p. 385).

An important means of voluntary informal education in agriculture is provided by *Young Farmers' Clubs*, which flourish in villages and towns throughout the United Kingdom. There are in all some 1,500 clubs with about 67,000 members, mostly between the ages of 10 and 25. Each club is self-governing but has the support of an advisory committee of farmers and others. Clubs are combined in county federations and in National Federations for England and Wales (founded in 1932), Scotland (in 1937), and Northern Ireland (in 1929).

The *National Federation of Women's Institutes* is another important voluntary organization, with over 8,000 Institutes in villages throughout England and Wales and some 400,000 members. The aim of the movement is to improve rural life and amenities, and the Institutes are interested in all subjects of agricultural, social and cultural significance to country-women. In Scotland and Northern Ireland, the *Women's Rural Institutes* have similar aims and interests.

Rural crafts and industries are fostered by the *Rural Industries Bureau*, founded in 1921, which is financed almost wholly by grants from the Development Fund set up under the Development Acts of 1909 and 1910. These Acts gave the Government power to make grants and loans from this Fund for certain specified purposes, including the promotion of rural industries. The Bureau provides an information and advisory service which helps country craftsmen in England and Wales to keep abreast of new developments, while at the same time preserving their ancient skills. Advice and instruction are given on the commercial as well as the technical aspects of rural industries. The corresponding body in Scotland is the *Scottish Country Industries Development Trust*, founded in 1935.

A *Museum of English Rural Life* was established by the University of Reading in 1951 as a national centre for the study of material connected with the history of the countryside. It was opened to the public in April 1955.

A large number of *Agricultural Shows* held annually throughout Britain focus the interest of farmers in modern practices and equipment. The chief ones are the Royal Show, held since 1839 by the Royal Agricultural Society of England; the Royal Highland Show, held since 1822 by the Royal Highland and Agricultural Society; the Royal Ulster Show, held by the Royal Ulster Agricultural Society; and the Royal Welsh Show, held by the Royal Welsh Agricultural Society.

FISHERIES

Britain's fishing industry falls into two main divisions: demersal and pelagic.[1] There are also fisheries for oysters, cockles, mussels and whelks from the Thames Estuary to the Wash, and on the Cornish and South Wales coasts; for lobsters and crabs off the Scottish coasts and off the north-east, east and south coasts of England; and for shrimps in the Wash, East Anglia, the Thames Estuary, and Morecambe Bay on the north-west coast of England.

There were 26,244 fishermen regularly employed in Great Britain at the end of 1954. The landed weight of British-caught wet fish amounted to nearly 18,000 tons per week; consumption of fresh, frozen and cured fish in Great Britain amounted to about 16,510 tons landed weight per week.

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[1] Demersal fish (white fish) live on or near the sea-bed (e.g., cod, haddock, plaice, whiting, turbot, and sole). Pelagic fish live in the intermediate waters or near the surface (e.g., herring, pilchard, mackerel, and sprats).

In Northern Ireland there were 650 regular fishermen and the landed weight of British-caught fish was 129 tons per week. Northern Ireland consumes about one-third of its own catches and exports the rest to Great Britain and to the Republic of Ireland.

Fishing Ports and Markets

The principal fishing ports in England and Wales are Grimsby, Hull, Fleetwood, Milford Haven and Lowestoft for white fish, and Great Yarmouth and Lowestoft for herring; in Scotland the chief centres are Aberdeen and Granton for white fish, which are caught all round the coast and particularly in the Moray Firth, and for herring Peterhead, Fraserburgh, Shetland, Stornoway, the West Coast and the Clyde; those in Northern Ireland are Ardglass, Portavogie and Kilkeel.

London is the principal wholesale distributing centre and Billingsgate Fish Market handles an average of 600 tons a day.

Sea Fishing

The chief means of catching fish are by the use of nets—trawl, seine, drift and ring—and by lining. Trawling is carried on in distant, middle and near waters for demersal fish throughout the year, and seasonally for herring. The deep-sea trawler fleet comprised 952 vessels at the end of 1954. Seining is chiefly used on the nearer grounds, the principal catches being haddock, cod, whiting and plaice; 594 Scottish and 60 Northern Ireland vessels engage in seine net fishing during most of the year, while from Grimsby, Fleetwood and Whitehaven 72 such vessels are in regular operation.

Drift nets are mainly used for herring and pilchard by 407 steam and motor drifters; ring netting, a method of catching herring, is used seasonally in certain districts by about 145 motor-boats. Long lining on grounds too rough for trawling is carried on by a limited number of vessels (mainly Scottish), while small and hand lining still provide employment for a large number of crews in autumn, winter and early spring; cod, whiting and mackerel are caught.

The quantity and value of fish landed in the United Kingdom during the year ended 31st December 1954 were as follows:

WET FISH (demersal and pelagic)
  Great Britain: 931,919 tons valued at £43,246,692
  Northern Ireland: 6,712 tons valued at £154,850

SHELL FISH
  Great Britain: value £1,310,065
  Northern Ireland: value £16,476.

Exports of fish from the United Kingdom—fresh, frozen, cured or canned—in 1954 were valued at £5,889,918.

Freshwater Fisheries

The principal commercial freshwater catches are salmon, grilse, sea-trout and eels. In Scotland and Northern Ireland fixed nets along the coast and sweep nets in rivers and estuaries are used; in England drift nets are used for catching salmon in the sea. In England and Wales the value of the salmon catch is approximately £250,000 a year, in Scotland it amounts to about £1 million, and in Northern Ireland to some £200,000. In Northern Ireland eels are captured by long lines and by eel nets placed in river weirs.

Sporting fishing is by rod and line in lakes, lochs, rivers and streams. Salmon, grilse and sea-trout are the most important species, and the fishing rights command high rentals. There are also extensive fishings for brown trout. Other freshwater fish taken, particularly in England, are roach, rudd, perch and dace. Fishing for freshwater fish other than salmon and trout is of minor importance and figures of catches are not available.

Promotion and Regulation of the Industry

Laws in Britain relating to fisheries and fish are principally directed to the following purposes: (*a*) protection of supply by measures against over-fishing, e.g., the Sea Fisheries Regulation Acts, 1888 to 1930, and the Sea Fishing Industry Acts, 1933 to 1938; (*b*) promotion of the prosperity of the industry, e.g., the Herring Industry Acts, 1935 to 1953, the White Fish Industry Acts, 1951 to 1953, and the Fisheries Act, 1955; (*c*) protection of the quality of the product, e.g., the Food and Drugs Act, 1938. The Government Departments mainly responsible for the administration of laws in the first two categories and for the general sponsorship of fisheries are the Ministry of Agriculture, Fisheries and Food, the Scottish Home Department, and the Ministry of Commerce for Northern Ireland; the Ministry of Health and the Department of Health for Scotland are concerned with questions of nutrition and hygiene affecting fish and fish products. The safety and welfare of crews of fishing vessels are provided for under the Merchant Shipping Acts, which are administered by the Ministry of Transport and Civil Aviation.

The authorities concerned with fisheries research are the Ministry of Agriculture, Fisheries and Food, the Scottish Home Department and the Development Commissioners (see p. 381).

Two statutory authorities exist to regulate and develop Britain's fishing industry: the Herring Industry Board and the White Fish Authority.

The Herring Industry Board

The Herring Industry Board was set up under the Herring Industry Act of 1935, to reorganize, develop and regulate the herring industry; subsequent amending Acts have also been passed. The Board is financed partly by Government grants and loans and partly by levies and licence fees. It consists of a chairman and two other members, all part-time and independent of the industry, who are appointed jointly by the Secretary of State for Scotland, the Minister of Agriculture, Fisheries and Food and the Secretary of State for the Home Department. The Board promotes sales of herring both at home and abroad, encourages and carries out schemes of research and experiment into methods of fishing and processing, makes grants and loans for the acquisition of new boats and engines, and loans for the purchase of nets and gear, for the provision of processing plants, and for the reconditioning of existing boats, and exercises a measure of control over the industry by means of rules, directions and licensing. It operates a scheme for the reduction of herring to oil and meal, using its own and commercial processing plants. In August 1951 the Board was given powers to participate in the industry, including fishing for herring, and purchasing, processing and selling herring; such powers, however, are to be used only to secure proper provision for the needs of the industry and after consultation with the interests concerned. The Board is assisted by the *Herring Industry Advisory Council*, representing various sections of the industry and consumers, and by local officers who work at the ports during the fishing season, and who on occasion act as port arbiters in disputes regarding herring sales. Sectional committees may be set up to advise the Board on matters affecting a particular section of the industry.

The White Fish Authority

The White Fish Authority was set up by the Sea Fish Industry Act, 1951, to reorganize, develop and regulate the white fish industry. The Authority is financed partly by Government grants and loans and partly by a levy on first-hand sales and by registration fees. It is composed of five independent members, appointed jointly by the Minister of Agriculture, Fisheries and Food, the Secretary of State for Scotland and the Secretary of State for the Home Department, working in consultation with the industry and consumers through the *White Fish Industry Advisory Council*. The Authority has powers, similar to those of the Herring Board, to carry on research and experiment, to encourage the formation and development of voluntary arrangements in the industry on a co-operative basis, to promote exports, to make grants and loans for the acquisition of new boats and engines, and loans for the purchase of nets and gear for the provision and reconditioning of processing plants and for the reconditioning of existing boats. Certain of the Authority's functions in Scotland and Northern Ireland have been delegated to a committee consisting of Scottish and Northern Irish members.

Whaling

Whaling is mainly conducted by expeditions, each consisting of a large floating factory ship accompanied by its attendant whale catchers and tankers, which annually cover large areas of the Antarctic Ocean. It is regulated by the International Whaling Commission, set up under the International Whaling Convention of 1946, which controls the dates of the season and sets a limit on the catch of whales. The offices of the Commission are in London.

The United Kingdom is the second most important country (after Norway) engaged in whaling, sending three expeditions to the Antarctic each year. In addition whaling is also undertaken from a land station on South Georgia, a British island in the South Atlantic. The value of the whale oil (the most important product) obtained by the British expeditions in the 1954–55 season amounted to nearly £7 million.

FORESTRY

The greater part of Britain's timber requirements is met by imports, valued in 1954 at £155 million. The Government is, however, devoting continuous effort through the Forestry Commission to the long-term task of increasing the country's timber resources which, over the centuries, and particularly as a result of overfelling in the two world wars, have been seriously depleted.

Forest Areas

The last census of woodlands (1947–49) disclosed that the total area of woodland in Great Britain amounted to nearly 3½ million acres,[1] or 6·5 per cent of the land surface. Of the total, 54 per cent lay in England, 37 per cent in Scotland, and 9 per cent in Wales. The greatest density of woodland in Great Britain is in the north and east of Scotland—for example, Moray had 21·6 per cent of its land area under woodland and Nairn had 19·1 per cent. Another region of high density lies in the south-east of England—Sussex, Surrey, Hampshire, Kent and Berkshire. Monmouthshire, on the Welsh border, had 10·7 per cent of its land area under woodland.

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[1] This total—3,448,362 acres—excludes woods of under 5 acres which were estimated at 187,000 acres.

Types of Woodland

The classification of woodland areas is shown in Table 23.

TABLE 23

PERCENTAGES OF TYPES OF WOODLAND AREA AT 30TH SEPTEMBER 1947 (excluding woods of less than 5 acres)

Type	Great Britain	England	Scotland	Wales
High forest ..	52	55	45	59
Coniferous ..	*25*	*18*	*34*	*31*
Mixed	*5*	*6*	*3*	*3*
Broadleaved ..	*22*	*31*	*8*	*25*
Coppice	10	18	negligible	6
*with Standards**	*7*	*12*		*1*
Coppice only ..	*3*	*6*		*5*
Scrub	15	10	20	13
Devastated ..	4	6	3	4
Felled	19	11	32	18
	100	100	100	100
TOTAL ACREAGE ..	3,448,362	1,865,046	1,266,838	316,478

*Where the actual coppice forms an underwood and there is an overwood of 'Standard' trees of various ages.

Of the broadleaved species the commonest tree is the oak (24 per cent of all species); with beech, ash, birch and sycamore following in that order. Of the coniferous species Scots pine is the most common (20 per cent of all species), but Norway and Sitka spruces are plentiful, particularly in Wales.

Volume of Timber

Practically the whole volume of timber over 3 inches in diameter comes from the High Forest and Coppice with Standards types. On this basis the census indicated that in 1949 the timber volume of Great Britain's woodlands amounted to some 2,650 million cubic feet, estimated to be made up of approximately 1,550 million cubic feet of hardwood and 1,100 million cubic feet of softwood. The total annual growth of timber was estimated at approximately 97 million cubic feet.

Ownership of Woodlands

The 1947–49 Census showed that 82 per cent of all woodlands in Great Britain was owned by private individuals or by limited companies, trusts, corporations, local authorities or Government departments other than the Forestry Commission. The remaining 18 per cent was under the management of the Forestry Commission.

The Forestry Commission

The Forestry Commission was established under the Forestry Acts, 1919–47, to promote the interests of forestry, the development of afforestation and the production and supply of timber in the United Kingdom. From 1922, however, the Forestry Commission's authority related only to Great Britain, as the Northern Ireland Ministry of Agriculture became the forest authority for Northern Ireland (see p. 167). The Forestry Act, 1945, made the Minister of Agriculture and Fisheries and the Secretary of State for Scotland jointly responsible for forest policy in Great Britain, but the Forestry Commission continued to carry out forestry operations, research and training of foresters. The Forestry Act, 1951, placed on the Forestry Commissioners responsibility for the maintenance of an adequate reserve of growing trees in Great Britain and gave them powers to regulate the felling of trees by the issue of licences.

During the years 1919–54[1] the Forestry Commission acquired 2,038,100 acres of land through the Forestry Fund (see p. 167), under the Forestry (Transfer of Woods) Act, 1923, and by gifts. This total comprises 1,254,100 acres classified as 'forest land', which is either planted or will be planted in due course, and 784,000 acres of 'other land' which includes forest nurseries, rough grazing, agricultural land and land unsuitable for planting on account of soil conditions and locality. The total number of Commission forests in Great Britain at 30th September 1954 was 479 of which 199 were in England, 201 in Scotland and 79 in Wales.

Policy

Great Britain's forest policy, laid down in the various Acts, is to extend State and private operations so as to establish, over 50 years, 5 million acres of well-managed woodlands, made up of 3 million acres of new planting by the Commission and the replanting by the Commission and private owners of 2 million acres of existing woodland. The annual yield from these 5 million acres should be about 35 per cent of the national timber requirements.

The restoration of privately owned woodlands is being assisted by the Dedication Scheme and other schemes under which grants are paid. The Dedication Scheme was initiated by the Forestry Act, 1947, and under it owners are invited to put their land permanently to timber production and to manage their woods in accordance with a plan agreed with the Forestry Commission. In addition to financial grants, free technical advice is provided by the Commission.

Forestry Education and Research

The Commission maintains five Forester Training Schools: in England, at Parkend in the Forest of Dean, Gloucestershire, and at Lynford Hall, near Thetford in Norfolk; in Wales, at Bettws-y-Coed in Caernarvonshire; and in Scotland at Benmore, Argyllshire, and Faskally, near Pitlochry in Perthshire. Northerwood House, the Commission's educational centre in the New Forest, Hampshire, is used for practical courses for university students, landowners and agents, planning officers, school teachers and others connected with forestry.

Higher education in forestry is provided at several universities, suitable graduates being recruited by the Commission as forest officers.

In 1946 Alice Holt Lodge, Farnham, Surrey, was opened by the Commission as a forest research station. Grants are made for research on special forestry problems of a fundamental scientific nature to be carried out by universities and other institutions qualified to undertake such work. Expenditure on research and experiment in 1954 amounted to £222,000.

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[1] To the end of the Forest Year 1954 (30th September 1954).

Finance

The Forestry Fund was established in 1919 and from it is paid all the expenditure of the Forestry Commissioners. The fund is replenished by sums voted annually by Parliament, receipts from forest produce, rentals and other sources. From 1920 to 1954 parliamentary votes totalled £62,436,800 and receipts £20,537,001. Payments were £82,776,691.

National Forest Parks

The Forestry Commission has opened to the public eight National Forest Parks: Argyll, Glentrool, Glenmore, and Loch Ard (renamed the Queen Elizabeth Forest Park to commemorate the Coronation) in Scotland; Hardknott and Forest of Dean in England; Snowdonia in Wales; and the Border Forest Park (adjoining the Northumberland National Park to the westward), which was declared in September 1955 and includes forests on the borders of Northumberland and Cumberland in England and of Roxburghshire in Scotland. The total area of the first seven forest parks is 290,000 acres; the Border Forest Park covers about 100,000 acres. The forest parks include planted areas and unplantable moorland and mountains. Camping facilities are provided in most of the parks, and the number of overnight stays at the camping grounds was 75,000 in 1954.

Forestry in Northern Ireland

When the Government of Northern Ireland was formed in 1922, the new Ministry of Agriculture became the forest authority working with similar powers and duties to those conferred on the Forestry Commission by the Forestry Act, 1919. At that time the Ministry took over some 4,000 acres for afforestation of which 700 acres had been planted by the Forestry Commission.

The State forest area has grown steadily and at a greatly accelerated pace since the end of the second world war. By 31st March 1955 some 70,000 acres had been acquired of which nearly 40,000 acres had been planted. The present afforestation programme provides for the creation within the next fifty years of an area of 150,000 acres of productive State forest with a sustained yield roughly equal to the present yearly consumption of timber in Northern Ireland, i.e. some 30,000 Standards. To fulfil this programme, a minimum annual planting rate of 2,500 acres has been set.

The authority for implementing the State forest policy is the Forestry Act (Northern Ireland), 1953, which has replaced earlier legislation. This Act provides the Ministry with powers to acquire and manage land, and to provide financial and technical assistance for private planting, and it introduces measures for the protection of all woodlands, whether State or privately owned, against destruction by over-cutting, fire or depredation by animals.

Financial provision is made by sums voted annually by Parliament and receipts from forest produce, rentals and other sources. From 1922 to 1954 expenditure totalled £2,120,000 and receipts were £830,000. Output and employment are growing steadily. The area of exploitable private woodlands is at present some 20,000 acres, and private planting, which is gaining impetus, is assisted by schemes for the supply of young trees at low cost from the Ministry's nurseries, by grants towards the cost of the establishment of new plantations, and by free technical advice.

Northern Ireland Forest Park

In May 1955 Northern Ireland's first forest park at Tollymore Park, Newcastle, County Down, was opened to the public. Situated at the foot of the Mourne

Mountains it covers an area of 1,200 acres. It contains an arboretum comprising a wide variety of native and exotic trees, and is rich in mountain, river and parkland scenery. Caravan facilities and a camping site for youth organizations are available.

FUEL AND POWER

The main primary sources of the fuel and power used in Great Britain are coal, petroleum, and water power, while the major secondary sources are electricity (including hydro-electricity) and coal gas. Inland coal requirements are substantially met from within the country, but rising home demands have made it necessary to reduce exports.

Nearly all petroleum is imported (most of it as crude oil) and refined within the country, only a little being produced from coal, shale and local oil wells. The fuel and power industries, with the exception of the petroleum industry and coal distribution, are mainly under public ownership.

The Government's fuel and power policy has broadly three objectives: to obtain more coal; to use the coal better; and to supplement supplies of coal with other sources of energy—atomic energy as soon as possible, natural gas if it can be found and oil forthwith.

The Government also aims to reduce air pollution, and a Clean Air Bill received its second reading in November 1955. The Bill empowers local authorities, subject to the approval of the Minister of Housing and Local Government, to declare 'smoke control areas', in which the emission of smoke from chimneys will constitute an offence.

COAL

Coal has been worked in Britain for over 700 years and an organized coalmining industry has been in existence for over 300 years, some 200 years longer than in any other European country. British coal exports dominated the world coal market until about 1910. By 1913—the peak production year—the industry was producing 287 million tons of coal, exporting 94 million tons and employing 1,107,000 workers.

The very fact that the British coalmining industry was developed so early has meant that many of the best seams of coal are now worked out; every year coal has to be mined from deeper and thinner seams and there is a constant struggle to maintain productivity at its present level.

The industry declined during the first world war owing to a shortage of manpower and to the shortage of plant and materials necessary for undertaking any mechanical improvement. Moreover, alternative sources of energy and lower prices in continental countries led to a later decline in exports, which had fallen to 67 million tons in 1925.

Attempts at securing economies through amalgamation date from the Sankey Commission of 1919. In 1930 a Coal Mines Act established commissioners to bring about the formation of larger and more efficient units. The Coal Act of 1938 transferred ownership of the mineral coal to the State and made it the statutory responsibility of a Coal Commission to accelerate the integration of the industry by still further reducing the number of separate undertakings. At the outbreak of the second world war in 1939, however, this process was not far advanced.

Organization under Public Ownership

In 1942 the Government assumed full control of the industry's operations, though the colliery undertakings continued to own the coal mines. In May 1946 the Coal Industry Nationalization Act received the Royal Assent. On 1st January 1947 the assets of the industry were vested in the *National Coal Board*, which was appointed by the Minister of Fuel and Power and became responsible for the industry's management. Under the Act, the Board consisted of a chairman and eight other members, but this provision was amended by the Coal Industry Act, 1949, and the Board now consists of a chairman and not fewer than eight or more than 11 other members; the number of full-time members must not exceed eight and there must be one, and may be two, deputy chairmen.

The Board's main duties are:

(1) to work and get the coal in Great Britain to the exclusion of any other person;

(2) to secure the efficient development of the coalmining industry; and

(3) to make supplies of coal available of such qualities and sizes and in such quantities and at such prices as may seem to it best calculated to further the public interest.

The Board is also charged with securing the safety, health and welfare of its employees and the benefit of their practical knowledge and experience. The Board's policies must also be directed to ensure that its revenues shall be not less than its outgoings properly chargeable to revenue account and taking one year with another.

There are minor exceptions to the Board's exclusive monopoly to work coal in Britain: for example, it may license private enterprise to work small mines in which the number of underground workers does not greatly exceed 30. Production on opencast sites, which had been the responsibility of the Ministry of Fuel and Power, was transferred to the Board on 1st April 1952.

The Board is responsible for its own regional organization. The collieries, numbering about 900, are grouped into 50 Areas which are the basic units for commercial management. The size of the Areas varies according to geological, geographical and other technical considerations. The Areas are grouped into nine Divisions which roughly correspond to the main coal-bearing regions (see p. 170). A Divisional Board for each Division supervises and co-ordinates the work of the Areas within the Division, formulates divisional policy, and is answerable to the National Coal Board, which is responsible for questions of national policy, finance and the co-ordinating of major schemes of development. The day-to-day work of running the collieries is under the direction of colliery managers.

Two Coal Consumers' Councils have been set up under the 1946 Act: the *Industrial Coal Consumers' Council*, members of which represent consumers, merchants and suppliers of coal, coke and manufactured fuel for industrial and other purposes, involving supply in bulk; and the *Domestic Coal Consumers' Council*, members of which represent similar groups concerned with coal for domestic use. The most important function of the Councils, which are responsible to the Minister of Fuel and Power, is the general consideration of the commercial arrangements and activities of the National Coal Board, to ensure that the monopoly in the industry set up by the 1946 Act shall have the maximum practical regard for consumers' interests.

The Coal Industry Nationalization Act requires the National Coal Board to publish an annual report and statement of accounts which are laid before Parliament.

At the end of 1947 (its first year) the National Coal Board showed a deficit of £23·3 million, after paying compensation to the former mineowners and interest on borrowed capital. In 1948, 1949 and 1950 there were surpluses of £1·7 million, £9·5 million and £8·3 million respectively. There were deficits of £1·8 million and £8·2 million in 1951 and 1952, a surplus of £0·4 million in 1953 and a deficit of

£3·8 million in 1954, the accumulated deficit since vesting day to the end of 1954 being £17·4 million.

The National Coal Board raises capital by long-term borrowing direct from the Exchequer, instead of through the issue of stock. There is a statutory limit of £300 million at present on such borrowing and special authorization is needed for borrowing over £40 million in any one year.

Production

It has been estimated that Britain has workable reserves of coal of 43,000 million tons, more than enough at current rates of consumption to last for 200 years. But certain types such as high quality coking coal will be exhausted long before then unless they are eked out by blending with other types of coal.

The main coal-bearing areas are: (1) the Yorkshire, Derbyshire and Nottinghamshire field which produces about 40 per cent of the total output, (2) the Durham and Northumberland field, (3) the South Wales field, and (4) the Scottish field. Other important coal-bearing areas are those of Lancashire and the West Midlands (Staffordshire and Warwickshire). There are no coal-bearing areas in Northern Ireland.

In the years immediately after nationalization the National Coal Board was able to secure quick increases in production and productivity by applying an accumulation of ideas which had been neglected during two world wars and the years of depression between the wars. As a result, deepmined production increased from 187·2 million tons in 1947 to 211·9 million tons in 1951 despite a fall of over 12,000 in average manpower. Productivity overall increased from 1·074 tons per manshift to 1·210 tons per manshift. By 1951 this process had been carried almost to its limits: by 1954 there had been only a slight further rise in production (to 214 million tons); that the rise was not larger was, however, partly due to the grant of a second week's paid holiday to miners in 1953. Future progress depends on the development of machines for power-loading the coal at the face on to the face conveyor belt (see p. 171), and on the reorganization of the haulage systems by carrying out major reconstructions. The National Coal Board has launched a large programme of major reconstruction and new sinkings, but no substantial benefits will accrue before 1957.

Since the war the coal industry has suffered from a shortage of manpower. In 1954 manpower averaged 707,200—about 15,000 fewer than the industry needs.

Production of coal from opencast sites in 1954 was 10·1 million tons of saleable output, bringing the total production in 1954 to 224 million tons.

Labour Relations

Negotiations on wages and conditions of service are conducted through a Joint National Negotiating Committee, consisting of 16 members appointed by the National Coal Board and not more than 16 members of the National Union of Mineworkers. Disputed issues are referred to a National Reference Tribunal consisting of three permanent independent members and four assessors without voting rights, two representing labour and two management. There are also District Joint Negotiating Committees which deal with the application of national agreements, settle any difficulties and differences that may arise at district level and refer unresolved differences to the national committee.

The Coal Industry Nationalization Act requires the Board to enter into joint consultation with its employees to discuss such matters as production, safety, health and welfare. At almost every colliery there is a Consultative Committee in which the workmen's representatives are elected by secret ballot. The colliery manager is chairman, and he nominates three colliery officials to be on the committee. There are also Consultative Councils at the area, divisional and national levels on which the Board and the four parties representing the people employed in the industry—the National Association of Colliery Managers, the British Association of Colliery Management, the National Association of Colliery Overmen, Deputies and Shot-firers, and the National Union of Mineworkers—are represented.

Safety and Health

The safety and health of miners is the subject of comprehensive legislation, which was consolidated and brought up to date by the Mines and Quarries Act, 1954 (see p. 270). Responsibility for the enforcement of safety regulations lies with the Mines and Quarries Inspectorate of the Ministry of Fuel and Power.

The National Coal Board has its own safety organization and, in accordance with the Nationalization Act, follows a policy directed towards securing the safety, health and welfare of its employees; examples of recent major advances in safety resulting from voluntary action by the Board are the installation of fire-resistant conveyor belts, the replacement of light alloy supports (which had been found to be liable to produce dangerous sparks) and the widespread introduction of courses of training for various classes of officials and workmen. The Board has also continued to strengthen the medical services which existed before nationalization. Chief Divisional and Area Medical Officers have been appointed and doctors have been appointed to large collieries and groups of collieries. Medical centres are being set up at the pit-head.

Research into problems of safety and health is carried out at the Ministry of Fuel and Power's Safety in Mines Research Establishment, which maintains a close liaison with the Mines Inspectorate and the National Coal Board's research organization.

Development and Research

Contraction and curtailment of development in the industry since the peak year, 1913, had led to a position in which less than one-third of current output was coming from pits started in the twentieth century. Large-scale development was therefore essential.

In 1950 the National Coal Board announced its long-term plan of development for the industry involving the reorganization and increased mechanization of existing mines and the sinking of new ones. The plan envisaged a capital investment of £635 million at 1949 prices between 1950 and 1965, when it was estimated that the annual output of coal would have risen to about 240 million tons. The plan was not a rigid blueprint, room being left for modifications in the light of changing circumstances and new knowledge. The plan was reviewed in 1954 and it was estimated that a higher annual output, of about 250 million tons, would be needed by 1965. Actual capital expenditure in the years 1950–54 was £258 million at current prices. When the programme is completed, four-fifths of Britain's coal will be coming from virtually new mines.

The mechanical cutting and conveying of coal are now the general practice: in 1954, 85 per cent of total deepmined output was mechanically cut and 91 per cent was mechanically conveyed. The loading of coal at the working face offers, at present, the next most important possibility for increased coalface mechanization. In 1954, 16 million tons were power loaded by nearly 400 machines, compared with 13 million tons in 1953 and 5 million tons in 1947.

In 1947 the National Coal Board took over, with other assets, the Coal Survey, a national organization for surveying coal resources within Britain, and 70 laboratories in the various coalfields, which it has since extended and modernized.

In 1948 the Board established a central research organization at Stoke Orchard, near Cheltenham, Gloucestershire, to provide facilities for fundamental research in the coalmining industry, as distinct from the day-to-day scientific control exercised by the divisional and area scientific organization. A second central research organization for the investigation of underground problems was formed in 1952 by the Board at Isleworth, Middlesex, and a Central Engineering Establishment is being built near Bretby in Derbyshire for developing new machines and equipment.

The Board also subscribes to a number of autonomous research associations in receipt of grants from the Department of Scientific and Industrial Research (DSIR, see p. 375), including the British Coal Utilization Research Association, the British Coke Research Association and the Coal Tar Research Association. In addition much of the work of other bodies, such as the Safety in Mines Research Establishment of the Ministry of Fuel and Power and the Fuel Research Station of DSIR, is closely related to the Board's problems.

PETROLEUM

The petroleum industry in Britain dates back to 1850, when Dr. James Young, a Glasgow chemist, succeeded in obtaining lamp oil and lubricants from natural mineral oil occurring in the Derbyshire coal measures. The Scottish shale deposits, yielding similar products, were first worked in 1858.

Indigenous Production

Sources of crude oil within Britain (including shale oil) supply altogether less than one per cent of total United Kingdom requirements, the remainder being imported from overseas.

Current output of shale oil is drawn from 11 shale mines and two opencast quarries, retorted in four crude oil works, and the crude products are refined in a central refinery at Pumpherston, near Edinburgh. Output of shale reached a peak of 3·4 million tons in 1913, but the cost of the processes and other economic difficulties led to a reduction of output. This at present averages 1·4 million tons a year, yielding in 1954 some 99,600 tons of crude shale oil. From the latter some 78,800 tons of refined products were obtained. In 1954 some 108,200 tons of motor and aviation spirit were obtained from coal by hydrogenation, and 198,000 tons of refined benzole from coke ovens and gas works. Prospecting for crude petroleum has so far led to the establishment of two oilfields in Nottinghamshire (small amounts of oil were found in further borings at Plungar in Leicestershire in 1953), one in Lancashire and one very small field in Scotland. Production of crude oil in 1954 was 59,100 tons.

International Trade

British and British-Dutch oil companies have been responsible for developing the oil resources of many countries to mutual advantage, especially in the Middle East, Far East and Caribbean areas.

Today they produce one-third of all oil entering into international trade, with a tanker fleet (part-owned by them and part on charter) amounting to nearly one-third of the world's tanker tonnage. (United Kingdom registered tanker tonnage is nearly one-fifth of the world's total.)

Consumption

Consumption of petroleum products in the United Kingdom has risen from almost one million tons in 1900 (mostly kerosene for lamps, and lubricants) to over 21 million tons in 1954 (predominantly gas, diesel and fuel oils and motor spirit).

Refineries

Up to 1939 three-quarters of the United Kingdom's supply of petroleum products was refined overseas, in accordance with the view, commonly held in the world oil industry at that time, that it was more economical to refine at the source of production. Since the second world war, however, the industry has come to favour the siting of refineries in the consuming areas. In this it has had Government support, both because of the need to save foreign exchange and because of the extra employment and other advantages to the economy resulting from the new development. The expansion programme in the United Kingdom carried out by the major oil companies was a substantial one, costing over the years 1947 to 1954 very nearly £200 million.

At the end of 1954 refinery capacity in the United Kingdom amounted to almost 29 million tons per annum; actual production of refined products rose from about 5 million tons in 1948–49 to 25·6 million tons in 1954. Exports of refined products became possible, and their value reached over £81 million in 1954, while in the same year imports of refined products were valued at £87 million compared with £141 million in 1951.

ELECTRICITY SUPPLY

Public supply of electricity was first provided at Godalming, Surrey, in 1881, though there were earlier demonstrations of its use to consumers such as the former Metropolitan Board of Works in the lighting of the Thames Embankment. From the earliest days a measure of public control has been a feature of the industry, and the Electric Lighting Act of 1882 authorized the Board of Trade to grant licences for the establishment of electricity undertakings by local authorities or by companies (which the local authorities might compulsorily purchase after a given period of time) to supply consumers in given areas. By the turn of the century technical developments, including the introduction of the electric motor as a source of motive power, had led to a large increase in the scale of distribution of electricity, and a variety of independent supply systems had grown up all over the country.

It was not until after the first world war that steps were taken to reorganize the industry on a national scale in order to realize the benefits of concentration, integration and standardization in electricity supply. In 1919 the Electricity Commissioners were set up as a supervisory body and to promote reorganization through voluntary agreement. Then in 1926 the Central Electricity Board was established to co-ordinate more efficiently the generation of electricity. Its main duties were to concentrate the output of electricity in certain stations, selected for their efficiency and low operating costs and to connect these selected stations with one another and to local distribution undertakings by means of a national system of main transmission lines, known as the Grid. Thenceforward steady progress was made in putting this plan into effect and, by March 1948, 143 selected stations, out of some 300, were supplying 95 per cent of the electricity generated for public supply.

Organization under Public Ownership

With the exception of a few small non-statutory undertakings accounting for less than one per cent of the electricity consumption, the public supply of electricity in Great Britain is now exclusively in the hands of public corporations: in England and Wales the Central Electricity Authority is responsible for generation and 12 Area Boards for distribution; and in Scotland the North of Scotland Hydro-Electric Board and the South of Scotland Electricity Board are each responsible for generation and distribution in their respective areas. In Northern Ireland, electricity is supplied by two municipal undertakings and one public board.

Under the Electricity Act of 1947, a central authority, then known as the British Electricity Authority, and 14 Area Electricity Boards, took over in April 1948 the assets of former municipal and private electricity supply undertakings throughout Great Britain, except in the area already served by the North of Scotland Hydro-Electric Board (see below). Under the Electricity Reorganization (Scotland) Act of 1954 the Authority's functions in Scotland were taken over on 1st April 1955 by the South of Scotland Electricity Board (see below) and the name of the Authority was changed from British Electricity Authority to Central Electricity Authority.

In March 1955 there were 199,400 persons employed in electricity supply in Great Britain, of whom 23,500 were women.

England and Wales

The *Central Electricity Authority* is appointed by the Minister of Fuel and Power and consists of a chairman, two deputy chairmen, and six to eight part-time members. The Authority is responsible to the Minister for the general policy of the whole electricity supply industry in England and Wales. Its main function is to develop and maintain an efficient co-ordinated and economical system of electricity supply and it is responsible for the generation and bulk supply of electricity to the Area Boards.

The *Area Boards* (of which there are at present 12) are responsible for the distribution of electricity in England and Wales. Each consists of a full-time chairman and deputy chairman and four to six part-time members, appointed, like the members of the Central Authority, by the Minister of Fuel and Power.

Area Consultative Councils have been set up in the area of each Area Board to represent the interests of consumers. They each consist of between 20 and 30 members, of whom between 50 and 60 per cent are nominated by local authority associations. The chairman of each Area Consultative Council is an *ex-officio* member of the corresponding Area Board. There are also Consultative Councils for each of the districts of the two Scottish Electricity Boards and the chairman of each is a member of the respective Board.

As an administrative arrangement for the local management and operation of power stations and the Grid (see p. 178), the Authority has established *Generation Divisions*, of which, at present, there are eleven. The areas they cover correspond in general with those of the Area Boards, except in north-west England and North Wales where one Generation Division coincides with the territory of two Area Boards.

Finance. The Central Authority and Area Boards taken together have made a consolidated net surplus on their operations in each of the years since they were established. Up to and including the financial year 1954–55, these surpluses amounted in the aggregate to over £60 million.

Labour Relations. Under the Electricity Act, 1947, the Central Authority is required to devise a satisfactory procedure for collective bargaining and joint consultation with its employees. In each of the three main groups of workers (administrative, technical, and manual), there is a separate National Joint Industrial Council or Board, which negotiates terms and conditions of employment. A National Joint Advisory Council drawn from management and employees has been set up to discuss questions of health, welfare and safety of all groups of employees. There are also separate district councils and local works and advisory committees forming part of the negotiating and conciliatory machinery.

Scotland

The *North of Scotland Hydro-Electric Board* was set up in 1943 as a non-profit-making body to develop the water-power resources of the Highlands and Islands and to distribute electricity in the more sparsely populated parts of Scotland not covered by existing undertakings. It is a non-functional board, consisting of a chairman, deputy chairman and not fewer than three nor more than seven other members, who are all part-time members without departmental responsibilities, appointed by the Secretary of State for Scotland.

The Act of 1947 made the North of Scotland Hydro-Electric Board solely responsible to the Secretary of State for Scotland for all generation and distribution in its area. This area was extended under the Act to include that part of Scotland north and west of a line running roughly from Dumbarton on the Firth of Clyde to a point just north of Newburgh on the Firth of Tay. In the rest of Scotland, the Central Authority, then known as the British Electricity Authority, together with the South-East and South-West Scotland Electricity Boards, was responsible to the Minister of Fuel and Power in all electricity matters.

On 1st April 1955, the *South of Scotland Electricity Board*, answerable to the Secretary of State for Scotland, took over the Central Authority's functions in Scotland, and also the functions of the two Scottish Area Boards, which were dissolved. The Board consists of a chairman, deputy chairman, two full-time and five part-time members. Under the Electricity Reorganization (Scotland) Act, 1954, the Minister of Fuel and Power retained only three functions in regard to electricity in Scotland, namely, to act jointly with the Secretary of State in regard to staff pensions and safety measures, and to remain solely responsible for the certification of meters.

Northern Ireland

In Northern Ireland the bulk of electricity is acquired by the *Northern Ireland Joint Electricity Committee* set up by statute in 1948, for sale to statutory distribution undertakings. Of these the *Electricity Board for Northern Ireland* distributes electricity throughout the country with the exception of the cities of Belfast and Londonderry, where it is carried out by municipal undertakings.

Generation

Almost the whole of Britain's electricity is produced in coal-fired steam generating stations. Abundant supplies of coal together with good rail and water transport for moving it, in contrast with the remote and scattered location of relatively small water-power resources, led to this preponderant development of electricity supplies from thermal generating stations. The development of hydro-electricity on any scale is comparatively recent.

The setting up of the North of Scotland Hydro-Electric Board in 1943 marked the beginning of a new era of intensive water-power development in the Highlands of Scotland. A development scheme drawn up by the Board in 1944, showing the water-power resources which it proposed to examine, listed 102 hydro-electric projects with an estimated annual output of 6,274 million units of electricity. The ultimate output of Highland hydro-electric power is expected to be substantially higher and eventually may exceed 10,000 million units. In 1954, 1,184 million units were generated from this source compared with 322 million in 1949.

In 1954, 70,993 million units (one unit = one kilowatt-hour), or 96·8 per cent of the public supply in Great Britain, was generated at steam stations, 2,237 million units, or 3·0 per cent, from water power, and 143 million units by other means, e.g., diesel and waste heat and refuse destruction. The high rate of expansion of output, which has been a feature of the industry since its earliest years, has been continued since the war. Total production in 1954 showed an increase of 17·8 per cent over 1952, and of nearly 96·8 per cent over 1945.

Generating capacity of the public supply industry (including hydro-electricity) in Great Britain as a whole at the end of 1954 totalled 20,650 megawatts (maximum continuous rating) compared with 12,546 megawatts at the end of 1946. The Central Electricity Authority is planning a large-scale programme of capital investment for the regions it controls, which makes provision for an increase, between the years 1955 and 1960, of 10,300 megawatts (sent out).

Sales of electricity in Northern Ireland (where the total generating capacity of 391 megawatts is in coal-fired thermal stations) amounted to almost 823 million kilowatt-hours in 1954, when the maximum load sustained was 317 megawatts. Further plant installations totalling 180 megawatts are in progress or authorized, and extensions to this programme are under review. The growth of load is at present of the order of 30 megawatts a year.

The Central Authority is the largest consumer of primary fuel in Britain and in the year ended 31st March 1955 it used approximately 40 million tons, consisting mainly of coal. Average thermal efficiency of steam stations (i.e. the ratio of power output to the coal consumed) rose from 20·86 per cent in 1947–48 to 23·85 per cent in 1954–55 as new plant was brought into use.

To meet increasing demands for electricity and to save coal, generation from alternative fuels is being actively promoted. The chief alternatives are expected to be oil and nuclear energy. As regards oil, dual firing apparatus able to use either coal or oil is being fitted to a new power station at Marchwood, on Southampton Water, and similar apparatus is to be installed in other power stations similarly situated on river estuaries and thus able to be fed conveniently from nearby oil refineries.

Nuclear Power Stations

As far as is at present known, nuclear energy, derived from fissile material in nuclear reactors, will, by providing fuel additional to coal and petroleum for steam raising, supply power in the form of electricity. Stations will be built both by the United Kingdom Atomic Energy Authority and the Central Electricity Authority.

Work started in the summer of 1953 on an experimental nuclear power station capable of generating 92,000 kilowatts of electricity (enough to supply a medium-sized town) at Calder Hall, near Windscale, Cumberland. This will be the world's first large-scale atomic power station. In March 1954 the Government announced its decision to build a full-scale breeder reactor (which would produce more fissile material than it consumed) at Dounreay in Caithness, Scotland. Work on this project has started.

In February 1955 a White Paper (*Cmd.* 9389) was published setting out in some detail a provisional programme of nuclear power for the United Kingdom covering the ten years 1955–65, and giving an indication of probable developments in the ten years after that. In the first ten years £300 million is to be spent on 12 nuclear power stations which by 1965 will be capable of generating between 1,500 and 2,000 megawatts of electricity. Table 24 shows how this programme is expected to work out. By 1965 the 12 nuclear power stations, which will be built to the order of the Central Electricity Authority with the advice of the Atomic Energy Authority, might be saving five to six million tons of coal a year and the new capacity coming into operation should meet one-quarter of the country's annual requirement of new generating capacity.

On 13th June 1955 the Minister of Fuel and Power announced that, in addition to this programme, six more reactors were to be built by the Atomic Energy Authority to provide plutonium for military purposes and power for civil purposes. Two of these would be on the Calder Hall site and the remaining four at Annan, Dumfriesshire, Scotland. Power from these would be developed 'during the lifetime of the present Parliament'.

TABLE 24

Programme of Nuclear Power

	Building dates		Power	Total Cost
	Starting	Completed	Megawatts	£ million
2 power stations*	1957	1960–61	100–200	30–35
2 power stations using reactors of improved design	1958–59	1963	100–200	30–35 +
4 power stations	1960	1963–64	Combined rating of more than 1,000 megawatts	125
4 power stations	1961–62	1965		
Building cost of the 12 power stations			1,500–2,000	200
Uranium (10 years' supply)				40
Ancillary equipment				30
Prototype expenditure				30–40
Total Cost of Programme				300

* It was announced in October 1955 that the Central Electricity Authority proposed to build its first two nuclear power stations at Bradwell in Essex and at Berkeley in Gloucestershire.

The £300 million investment will not be altogether an additional demand on the economy, as nuclear power stations will be built instead of other types of station on which the Central Electricity Authority had been expecting to spend some £1,200 million between 1955 and 1965. The National Coal Board should also be able to reduce its investment programme at the end of that time below the total that would have been necessary in the absence of nuclear power.

The cost of electricity generated in nuclear power stations is estimated in the White Paper at about 0·6 pence per unit—the same as the probable future cost of electricity generated by coal-fired power stations, assuming a reasonable value for the plutonium produced as a by-product. Later stations should show a great improvement in efficiency but the value of plutonium will probably fall considerably during their lifetime. Even so, their higher efficiency should enable them to remain competitive with other power stations.

Nuclear power stations are being planned by the Electricity Authorities and will be built for them by the private manufacturing firms which normally build power stations at present. The Atomic Energy Authority is recognized as the expert body on the nuclear components of such power stations. The Central Electricity Authority has set up a nuclear power branch of its engineering department; the South of Scotland Electricity Board is preparing for the establishment of nuclear reactors in Scotland; and the Northern Ireland Ministry of Commerce has appointed an engineer in charge of plans for the use of nuclear energy in the generation of electricity.

Transmission and Distribution

Main electricity transmission lines—the Grid—cover most of the country. Those of the Authority totalled 5,642 route miles (8,153 circuit miles) at 31st March 1955, of which 41 miles were operated at 275,000 volts, 5,098 miles were operated at 132,000 volts and the remainder at 66,000 volts and below. In the North of Scotland district there were 1,130 circuit miles of main transmission lines at the end of 1954, all operated at 132,000 volts. Control of energy movements on the Grid in England and Wales is managed through the eight operational areas, set up by the Authority for that purpose and distinct from the divisions in which the generating side of the industry is organized; each area has a central control station and the operations are co-ordinated by a control station in London. The Grid in Scotland is operated from the North of Scotland control centre at Tummel Bridge and the South of Scotland control centre at Glasgow.

The new Supergrid of main transmission lines at 275,000 volts will assist in meeting the growing demand for electricity during the next 20 years with the greatest economy and will make the British electricity supply the most closely integrated power network in the world. The first stage was completed in 1954. The Authority is also undertaking in conjunction with the corresponding French organization—*Electricité de France*—experimental trials with the object of linking British and French Grid systems by submarine cable in order to take advantage of different peak periods in the two countries.

The Area Electricity Boards distribute to consumers electricity acquired mainly from the Authority, but in part from other sources, e.g., collieries. There were 15 million consumers in December 1954, an increase of approximately 5 million on those supplied in March 1939. Industrial users are the group of consumers with the highest consumption (32,029 million units in 1954), and demand from this sector is increasing rapidly. The principal domestic uses of electricity are for lighting, cooking, and for space and water heating, but the demand for numerous other domestic purposes is increasing.

The development of electricity supplies for rural areas has been facilitated by the change in the structure of the industry under the 1947 Act. During the year ended 31st March 1955 supplies were provided for a further 14,749 farms which raised the total to over 167,000.

The North of Scotland Hydro-Electric Board has also pressed ahead with the distribution of electricity to consumers in the North of Scotland. At the end of 1954 there were 322,127 consumers of electricity in the Board's district and 41 per cent of the farms and 46 per cent of crofts (see p. 145) in the district had a supply of electricity.

Development and Research

The comprehensive capital development plan to bridge the gap between ever-increasing demand and supply is limited by shortages of equipment and finance.

Borrowing by the Central Electricity Authority and Area Electricity Boards was limited to a maximim of £700 million by the Electricity Act, 1947. By 30th June 1954, borrowings had been authorized up to a total of £635 million. Under the Gas and Electricity (Borrowing Powers) Act, 1954, these powers were extended to £1,400 million. The capital investment requirements of the Authority and Area Boards in 1954–55 were about £203 million. The investment plans of the Authority will be considerably modified by the programme of nuclear power development, outlined on pp. 176–8, inasmuch as it is conceivable that, from the middle of the 1960s, no more coal-fired stations will be built and all new plant will consist of nuclear-powered stations.

Borrowing by the North of Scotland Hydro-Electric Board is limited by the Electricity Act, 1947, as amended by the Hydro-Electric Development (Scotland) Act, 1952, to a maximum of £200 million. Borrowing by the South of Scotland Electricity Board is limited by the Electricity Reorganization (Scotland) Act, 1954, to a maximum of £75 million.

The Electricity Boards undertake research on their own account and help to finance research through their membership of the British Electrical and Allied Industries Research Association, an organization to which manufacturing firms and large consumers of electricity also belong and which was established before the supply industry passed into public ownership. This Association is one of the 41 autonomous research associations in receipt of grants from the Department of Scientific and Industrial Research. The Central Electricity Authority has an Electrical Supply Research Council including independent experts to advise it and its Area Boards, and can consult the Minister of Fuel and Power's Scientific Advisory Council on problems affecting the supply and use of electricity. Direct research on a laboratory scale takes place at the Central Electricity Laboratories at Leatherhead, Surrey, extensions to which were opened by the Authority in July 1950. Examples of research include gas turbine generation and experiments in the use of wind power for generation.

GAS SUPPLY

Public supply of gas in Britain dates from 1807, when Pall Mall, London, was first lighted with gas. In 1812 the London and Westminster Gas Light and Coke Company received a Royal Charter to supply gaslight in London. In the early years of the industry, gas was used almost exclusively for lighting and was provided by a growing number of company and municipal undertakings. Then, after the middle of the century and the invention of the Bunsen burner in 1855, gas was used increasingly as a source of heat for many purposes such as domestic cooking and space and water heating, in addition to a number of industrial uses. After 1880, however, gas for lighting purposes was subjected to increasing competition from the new electricity supply industry; but the invention of the Welsbach incandescent mantle in 1887, which raised the efficiency of gas lighting very considerably, enabled the industry to hold its own while the supply of gas for purposes other than lighting increased.

The gas industry in its present form developed in the main during the period between the wars when increasing competition from electricity had to be met and when changes in social habits and outlook were taking place. The industry undertook a large-scale programme of modernization of production and distribution and launched widespread sales promotion campaigns especially for the numerous uses of gas in the home. By 1939 the industry had become mainly a supplier of heating instead of a supplier of lighting.

Organization under Public Ownership

Under the Gas Act, 1948, the gas industry was brought under public ownership and control on 1st May 1949. The assets of 991 undertakings, of which 269 belonged to local authorities, were vested in 12 Area Gas Boards. Together they cover the whole of Great Britain and are charged with a statutory duty to develop and maintain an efficient, co-ordinated and economical system of gas supply to domestic, industrial and other consumers. The national body is the *Gas Council*, which is appointed by the Minister of Fuel and Power and is responsible *inter alia* for advising him on questions affecting the gas industry. It is a co-ordinating council, not a trading body. It consists of a full-time chairman and deputy chairman and the 12 chairmen of the Area Boards.

The *Area Gas Boards*, which have a large measure of financial and operational responsibility and are similar in most respects to the central bodies of the other publicly owned corporations, are charged *inter alia* with the responsibility of manufacturing and distributing gas to consumers. Their powers differ from those of the Electricity Area Boards, which are limited to the distribution and sale of current, while the central executive body—the Central Electricity Authority—is charged with the duties of generation and transmission. Each of the Area Gas Boards, which like the Gas Council are appointed by the Minister of Fuel and Power, consists of a full-time chairman and deputy-chairman, in some cases one, and in one case two, full-time members, and always five or six part-time members including the chairman of the Area Consultative Council. There is no common pattern of organization; each Board is fully independent and has devised its own subordinate structure.

A link between the industry and the consuming public was established under the nationalization scheme by the creation of a *Consultative Council* in each board area. These councils consist of not fewer than 20 and not more than 30 members, of whom between 50 and 75 per cent are chosen from panels of persons nominated by the local authority associations.

In Northern Ireland the gas supply industry remains in the hands of a number of municipal undertakings and statutory and non-statutory companies.

As has been said, the Gas Council is not a trading body, but the operations of the Area Boards have resulted, up to 31st March 1954, in an aggregate disposable surplus of over £8·5 million.

Labour Relations. Under the Gas Act, 1948, the Gas Council is responsible for arranging satisfactory procedures of collective bargaining and a system of joint consultation with its employees. There are separate Joint Industrial Councils at the national level for manual workers and salaried staffs, and subordinated regional councils and local committees. At national and regional levels the councils combine negotiating and consultative functions, but there are in some cases separate Consultative Committees at the local level.

Production

In 1954 in Great Britain 27·2 million tons of coal were carbonized by gas undertakings and 26·7 million tons by coke ovens operated outside the gas industry. About one-quarter of the output of gas from coke ovens is sold to gas undertakings for general distribution; the remainder is mainly consumed at the ovens or at collieries or steelworks.

In 1921, 250,300 million cubic feet of gas was manufactured by authorized gas undertakings or acquired from coke ovens, and the number of consumers was 7·6 million. By 1954 gas manufactured and acquired from coke ovens for distribution had risen to 586,800 million cubic feet and the number of consumers had risen to about 12·5 million, an increase of 135 per cent in the volume of gas available and of about 65 per cent in the number of consumers.

In 1954, the quantity of gas produced in Northern Ireland was 7,615 million cubic feet, most of it for household use.

The total number of persons employed in the gas industry in December 1954 was 143,000, including 13,000 women. There has been an increase of 7,000 in the number of workers since September 1948.

Consumption

More than half of all gas produced is sold for household use and the remainder for industry, commerce and public services.

Domestic Use. While an accurate statistical analysis of the domestic load is not possible, evidence given before the Ridley Committee (on Fuel and Power Policy), appointed by the Minister of Fuel and Power in 1951, suggested that about 70 per cent of the domestic load was used for cooking, the remaining 30 per cent being spread over space heating, water heating and other installations. Most homes in Britain are now supplied with gas, except in some rural areas where, owing to difficulties in storage and transmission, gas is not economic. These difficulties have been overcome to some extent by the use of local high-pressure storage tanks, but this development is unlikely to grow owing to the steady extension of rural electricity supplies. Bottled gas, derived from petroleum, is widely used in rural areas.

Industrial and Commercial Use. Gas is used extensively in industries which require a simple control of temperature to a fine degree of accuracy. Among such industries are pottery and certain processes in the manufacture of iron and steel products. Industrial use of gas increased greatly during the second world war and reached 103,000 million cubic feet in 1943. By 1954 industrial consumption is estimated to have reached 148,000 million cubic feet.

By-products

With the rapid increase in the volume of gas produced, the problems of the disposal of substances which were regarded originally as the 'waste' products of the carbonization of coal (notably tar, benzole, sulphur and ammonia) became increasingly important.

Production of coke at gas works in 1954 was 12·3 million tons, and at coke ovens 17·9 million tons. The gas industry and coke ovens jointly produce over 2·9 million tons of crude coal tar and about 110 million gallons of crude benzole a year. These products, together with those of the sulphur and ammonia type, provide a source for the manufacture of a long and ever-growing list of essential derivatives which includes dyestuffs (of which Britain now produces more than 80 per cent of its requirements), fertilizers, plastics, germicides (the sulphonamides and sulphanilamides), insecticides, refrigerants, perfumes, and synthetic yarns.

With further research and development, more especially in the field of organic chemistry, the production of coal carbonization derivatives is becoming of increasing importance to the economy of the industry.

Development and Research

The chief objects of capital expenditure in the years immediately after the war were to overtake arrears of plant renewal. Plans for further expansion were approved by the Minister of Fuel and Power in 1954 and are outlined in the Gas Council's publication *Fuel for the Nation.*

Under the Gas Act, 1948, borrowing by the Gas Council and the Area Gas Boards was limited to £250 million. Borrowings to a total of £235 million had been authorized up to 30th June 1954. The Gas and Electricity (Borrowing Powers) Act, 1954, extended these borrowing powers to £450 million.

Capital expenditure in the year ended 31st March 1955 was £55 million, compared with £46 million in 1952–53 and £36 million in 1950–51.

The post-war structure of the industry has already permitted considerable integration by the linking of undertakings for the transmission of gas (through gas grids and long-distance mains), enabling production to be concentrated in the most efficient units. Progress is also being made in interconnections for the reception of gas from coke ovens, notably in Wales, Durham and Yorkshire.

Supplies of suitable coal to meet a steadily increasing gas consumption are becoming more difficult to obtain. Investigations into alternative sources of gas are being actively undertaken by the Gas Council. Gases from oil refineries (butane or propane) are used in several installations in smaller towns remote from large gas works or the grid systems. Progress has also been made with the possible use of methane, drained from coal mines. In agreement with the National Coal Board, Area Gas Boards have agreed to schemes for using methane from Point of Ayr Colliery in North Wales and from Haig Pit at Whitehaven, in Cumberland.

Three oil gasification plants are at present in operation and 14 additional plants are on order. These plants will be capable of producing 25 million cubic feet of gas per day and of saving half a million tons of carbonizing coal a year. In addition the South Eastern Gas Board and the British Petroleum Company are jointly examining the practicability of building a plant to convert petroleum products from the company's Kent oil refinery to town gas of acceptable quality. It is expected that the initial installation would convert some 50,000 tons of petroleum products a year to gas and would have a daily output of 15 million cubic feet of gas.

The Gas Council is investing £1 million in a five-year survey for natural gas within Britain. A technical mission has visited the United States to study the possibility of transporting liquefied natural gas from areas such as the Middle East where it is running to waste.

The research organization established by the Gas Council consists of a research committee which advises the Council on policy and sees that it is carried out; and two research stations, one in London and one at Solihull, near Birmingham. Research is also carried out on behalf of the Gas Council at Leeds University and by the British Ceramic Research Association (an autonomous research association grant-aided by the Department of Scientific and Industrial Research). Further, the Council and Area Boards support a number of research associations, the work of which has a bearing on the gas industry. These include the Coal Tar Research Association, the British Coal Utilization Research Association and the National Benzole Association. The underlying aim of the Council's research programme is to 'make the most economic use of the natural resources available to the nation, whether by improvements in existing processes of gas manufacture, by seeking new processes or new sources of supply of gas and by the extraction and use of other products of gas-making'.

FUEL EFFICIENCY

The Government has for a number of years sought to promote efficiency in the use of fuel, among both industrial and domestic users, and has been assisted by various bodies representative of producers and consumers.

The *Coal Utilization Council* consists of representatives of the National Coal Board, coal distributors and coal appliance manufacturers. It was formed in 1932 to give information and advice on the best use of solid fuel, including the choice of installation and operation of solid fuel appliances, to domestic consumers and retailers of appliances. During the second world war the reduction in coal production and the demands of war industry made economy imperative. When the Ministry of Fuel and Power was formed in 1942, an industrial fuel advisory service with regional branches was incorporated within it. In 1943 the *Women's Advisory Council on Solid Fuel*, consisting mainly of representatives of appliance manufacturers, women's organizations and others interested in the housewife's point of view on domestic fuel arrangements, was formed to advise women on the use of solid fuel for heating and cooking.

Further measures have been taken during the last three years. Under a scheme introduced in 1952, loans on favourable terms are available from the Exchequer to industrialists for financing approved fuel-saving schemes. At present these loans are interest-free for the first two years, repayment may be spread over a maximum period of twenty years and no security is required. In October 1953 a non-profit-making company, known as the *National Industrial Fuel Efficiency Service*, sponsored by the British Productivity Council (see p. 140), was formed to promote fuel-saving in industry. This company, which largely replaced the industrial fuel advisory service of the Ministry of Fuel and Power, came into operation on 1st May 1954. It provides advice and services to all non-domestic fuel users in a variety of forms, from 'spot' inspection to full-scale heat and power surveys and regular visits on a contract basis. A survey into the generation and use of steam carried out by the Ministry has been employed to show the possibilities in the increased uses of back-pressure steam in the generation of electricity. The electricity and gas industries, the largest consumers of primary fuel, are succeeding each year in obtaining more energy from each ton of coal they use by increasing the thermal efficiency of their plants.

WATER SUPPLY

Britain has a sufficient rainfall to ensure enough water to supply all its domestic and industrial requirements. Water problems are mainly concerned with abstraction, storage, treatment and distribution. Supplies are obtained partly from surface sources such as mountain lakes, streams impounded in upland gathering grounds and river intakes, and partly from underground sources by means of wells, adits and boreholes. Unlike other public services in Great Britain, such as electricity and gas, water supply remains in the hands of a large number of water undertakings of different kinds. Ministerial responsibility for national water policy rests with the Minister of Housing and Local Government in England and Wales, with the Secretary of State for Scotland in Scotland and with the Minister of Health and Local Government in Northern Ireland.

Development of Water Supply in England and Wales

It was not until the nineteenth century that the provision of water supplies became a general public service and then only after long and bitter controversy. It was largely due to the efforts of Edwin Chadwick and his colleagues, who demonstrated the dangers to pure water supply and sanitation brought about by the new industrialization, that the Public Health Act, 1848, became law in England and Wales and laid the basis for a long series of statutes dealing with public health.

From the middle of the nineteenth century onwards a number of separate large water undertakings were set up to provide adequate supplies of pure water to the expanding urban population, and the water supply system developed rapidly, although in piecemeal fashion and with some overlapping and waste.

To meet the urgent need for co-ordination and long-term planning, the Minister of Health (till 1951 the responsible Minister) was assisted from 1923 onwards by an Advisory Committee on Water, and a number of Regional Advisory Water Committees were set up for important areas having common water problems.

Organization of Water Supply in England and Wales

Local authorities have a duty as sanitary authorities to ensure that water supplies are adequate for the needs of their areas, and they may do this either by setting up a water undertaking themselves or by ensuring that private statutory companies are providing an adequate supply. The householder receives his domestic water supply at a comparatively small charge, varying in different areas, which he pays by way of a water rate levied, like other rates (see p. 68), on the value of his house.

By the Water Act, 1945, the Minister of Housing and Local Government now has powers to promote the conservation and proper use of water supplies in England and Wales. The same Act provided for a Central Advisory Water Committee to advise the Government on general questions relating to water and dealt with the local organization of water supplies and the powers and duties of local authorities and water undertakings. Local authorities were required to supply piped wholesome water to every part of their districts where there were houses or schools, unless it was impracticable to do so at reasonable cost. They were also required to maintain wells, springs and water mains, and to ensure that supplies were free from pollution.

Since the Water Act was passed, more than 100 smaller water authorites in England and Wales have been absorbed by larger authorities or by the creation of joint boards. The principal object of such amalgamation is the constitution of more efficient units in the water supply industry.

In March 1955 in England and Wales there were 901 local authority water undertakings, 56 joint water boards (including bulk supply boards) and 13 joint water committees, 98 statutory water companies, 33 non-statutory water companies, and 4 private proprietors with statutory powers. A considerable number of private proprietors without statutory powers also provide small supplies. Water undertakings vary greatly in size; of the statutory undertakings, some 2½ per cent supply about half the population.

The *Metropolitan Water Board*, which is probably the largest single water undertaking in the world, supplies about 330 million gallons daily to about 6½ million people in the London area. The Board was established in 1903, and in the following year took over the undertakings of eight water companies which were supplying the London area. It consists of 66 part-time members who are the elected representatives of the various local authorities within the Board's area of operations, together with one representative each from the Thames and Lee Conservancies. The chairman and vice-chairman are chosen by members of the Board for their experience in water undertakings.

Present Supplies in England and Wales

Today, piped water supplies reach some 95 per cent of the total population of England and Wales. More than 70 per cent of persons living in rural areas have piped water supplies or are within easy reach of water mains.

The water storage capacity in England and Wales has been increased by 25 per cent since 1945 and is now rather more than 239,000 million gallons, or enough to supply those countries for more than 100 days. Over 31,000 miles of water mains have been laid since 1945, and statutory water undertakings together supply about

1,750 million gallons a day or about 40 to 45 gallons per head of the population (including water supplied to industry). They spend about £22 million a year on capital development, financed mainly by loans, the interest on which, together with running costs, is paid by the undertakings from a total annual income of some £50 million. This income is derived from local water rates or charges levied on domestic consumers calculated as a proportion of the annual rateable value of their property and from prescribed charges for supplies as recorded by meter in the case of most industrial users. In addition to supplies from water undertakings, large quantities of water are taken by industry from rivers or underground sources.

The provision of piped supplies for rural districts was assisted by an initial grant of £1 million under the Rural Water Supplies Act, 1934; further grants of up to £45 million (in England and Wales) were provided under the Rural Water Supplies and Sewerage Acts, 1944 and 1951. By February 1955 schemes costing £22 million had been completed with the aid of grants under these Acts, and schemes worth £61 million were in progress. The Act of November 1955 provides for another £30 million for grants.

The steady growth of towns in England and Wales has meant increased demands for water, and in so far as such growth involves covering the ground with impervious material, so that water which previously would have percolated through to underground natural reservoirs is now carried off in drains and rivers, some diminution in water supplies may result. On the other hand, improved methods of purification in recent years have resulted in greater use being made of water drawn from the lower reaches of rivers.

The Ministry has completed some 30 surveys of existing water requirements and of supplies covering the whole of England and Wales, which provide a basis for planning possible future developments.

Water Supply in Scotland and Northern Ireland

In Scotland public water undertakings are carried on entirely by local authorities, who supply over 95 per cent of the total population. The water problem in Scotland is broadly similar to that in England and Wales save that less reliance needs to be placed on underground sources. Scotland has separate legislation, the Water (Scotland) Acts, 1946 and 1949, which provide, among other things, for the setting up of the Scottish Water Advisory Committee to advise the Secretary of State for Scotland, who is the responsible Minister; a uniform system of rating for water throughout the country; and grant assistance for rural local authorities up to £20 million (increased by £10 million by the Act of November 1955, see above). By March 1955 schemes for rural areas costing £3·4 million had been completed with the aid of such grants, and schemes worth £12·5 million were in progress.

Northern Ireland has abundant supplies of fairly uniform soft water. Gravitation water systems supply the large towns. The Water Supplies and Sewerage Act (Northern Ireland), 1945, places certain statutory obligations on local authorities with regard to water supply and provides grants towards the cost of improvements.

River Management

The 32 River Boards set up under the River Boards Act, 1948, carry out the functions and co-ordinate the various aspects of river management in England and Wales previously performed by a large number of separate authorities.

Each River Board covers a River Board Area. The River Board Areas together comprise the whole of England and Wales, except the Thames and Lee Catchment areas (which are under the jurisdiction of the Thames and Lee Conservancy

Boards[1] respectively), the administrative County of London, and areas adjoining that county not included in any catchment area.

River Boards are composite bodies representing local government, agricultural and fishery interests, and most of their expenses are apportioned among the councils of the counties or county boroughs concerned in them in proportion to the rateable values of property in the River Board Area.

River management in Scotland and Northern Ireland has not been concentrated to the same extent.

It is an offence for any person to permit any polluting matter, solid or liquid, to enter a river. The Rivers (Prevention of Pollution) Act, 1951, revised and strengthened previous legislation for the prevention of river pollution in England and Wales. Enforcement of the Act is vested in the River Boards and the Thames and Lee Conservators. There is a similar Act for Scotland.

Water Survey and Research

A survey is being carried out to provide Government Departments, water undertakings, industry, agriculture and other water users with information on the yield, behaviour and quantity of the nation's water resources. The field work on surface water is being undertaken mainly by the River Boards under the guidance of the Ministry of Housing and Local Government and the Ministry of Agriculture, Fisheries and Food. The other two aspects of the survey, rainfall and underground water supplies, are the responsibility of the Meteorological Office (see p. 43) and the Geological Survey and Museum respectively. There are arrangements for consultation between the interested bodies.

The Water Pollution Research Laboratory of the Department of Scientific and Industrial Research is engaged in investigating problems connected with the treatment of water for domestic and industrial supply, the treatment and disposal of sewage and industrial waste waters, and the effects and prevention of pollution of surface waters and underground water. The Laboratory maintains close contact with other interested Government Departments, with municipal and other public authorities, and with industry. Research is carried out with general supervision and advice from the Water Pollution Research Board of the Department of Scientific and Industrial Research. The Board was set up in 1927 and its members are appointed by the Lord President of the Council.

SOME MANUFACTURING INDUSTRIES

The United Kingdom's manufacturing industries provide an exceedingly wide range of products many of which play a major role in world trade. In terms of net output and exports the most important groups of industries are those concerned with the manufacture of metals and metal products, though the textile and chemical industries are also of considerable significance. Some impression of the relative importance of the different groups in terms of net output is given in Table 25, which is based on the provisional results of the Census of Production for 1953.

An important feature in the expansion of United Kingdom exports since the second world war has been the development of new types of commodities, meeting new and growing needs. In many cases, the industries making them are based on inventions or discoveries made during or after the war; in others, the basic research

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[1] The Thames and Lee Conservancy Boards are similar in constitution and powers to the River Boards. Because London draws most of its water supplies from these two rivers, however, they have long been regulated under powers granted by Acts of Parliament of purely local application.

TABLE 25

NET OUTPUT OF INDUSTRY GROUPS IN 1953

	£ million	Percentage of Total
Metal manufacture	478·2	8·8
Shipbuilding, engineering and electrical goods	1,240·0	23·0
Vehicles	579·5	10·7
Miscellaneous metal products	285·0	5·3
Chemicals	409·2	7·6
Textiles and clothing	840·4	15·6
Food, drink and tobacco	614·4	11·4
Other manufacturing industries	950·1	17·6
TOTAL	5,396·8	100·0

Source: *Board of Trade Journal.*

had been done before the war, but production on a commercial scale was not undertaken until later. The development of gas turbine aircraft, radar and penicillin are well-known examples of these new industries.

METAL MANUFACTURE

The metal manufacturing industries employed 564,000 persons at the end of 1954. Nearly four-fifths of these were engaged in the production of iron and steel.

Iron and Steel

Britain pioneered the application of coal to the smelting of iron ore from the seventeenth century onwards and was responsible for the technical development which led to the great expansion of steelmaking in the second half of the nineteenth century. Today Britain is one of the world's four largest producers of steel and is renowned for the quality of its special and alloy steels. In 1954 direct exports of steel amounted to 2·4 million tons at a value of £137 million, in addition to indirect exports through the sales of the steel-consuming industries; export sales of the vehicles industries (which are the major consumers of steel) amounted to some £402 million in 1954 (see p. 193).

The modernization of the industry, begun in the late 'thirties, was interrupted by the war. A post-war development plan was drawn up in 1945 by the British Iron and Steel Federation, the main trade organization of the industry. This plan, which was generally approved by the Government in 1946, aimed to modernize steelmaking capacity in Britain and to increase it to 16 million tons a year by the early 1950s. This objective was exceeded with the production of 16·4 million tons in 1952, 17·6 million tons in 1953 and 18·5 million tons in 1954. Work on the greater part of a further development plan to raise the country's steel production to at least 22 million tons by 1957 is well in hand. Notable projects completed under the first plan include the Abbey Works at Margam, the tinplate works at Trostre (both in South Wales) and the new sintering process incorporated in the *Seraphim* extensions at Scunthorpe, in Lincolnshire, where the largest blast furnace in Europe was installed in 1954.

About 450,000 people were employed in those industries generally regarded as iron and steel manufacture at the end of 1954. Of these: 21,400 were engaged in work at blast furnaces; 222,300 in iron and steel smelting and rolling; 126,900 in iron foundries; 14,000 in tinplate manufacture; 20,000 in steel sheet manufacture; and 45,500 in iron and steel tube manufacture.

South Wales and the north-east coast of England are the United Kingdom's two largest steel-producing areas, together responsible for an annual production of over 8 million tons. South Wales is engaged mainly in the production of flat products, and is especially noted for its tinplate production. In the north-east coast area of England, production is concentrated on heavy sections and rails, and plates for the shipbuilding industry. Scotland, with an annual production of over 2 million tons, finds its chief internal markets in the shipbuilding and engineering industries of the Clyde Valley. Sheffield is known all over the world for its special and alloy steels.

The iron and steel industry has been subject to some form of public supervision since 1932, when a Government-appointed body, the Import Duties Advisory Committee, gave special attention to the reorganization of the industry. During the second world war detailed control was exercised by the Iron and Steel Control of the Ministry of Supply and, from 1946 to 1949, the industry was supervised by an Iron and Steel Board responsible to the Minister of Supply. On 15th February 1951 the greater part of the industry came into public ownership by virtue of the Iron and Steel Act, 1949. On that day the securities of about ninety iron and steel producing companies were transferred to the Iron and Steel Corporation of Great Britain established under the Act, although the companies retained their separate identities and managements and the control of their subsidiaries.

The 1949 Act was repealed by the Iron and Steel Act, 1953, which established an Iron and Steel Holding and Realization Agency with the duty of returning these companies to private ownership. By September 1954 about one-third of the devesting programme had been carried out. The 1953 Act also provided for the establishment of an Iron and Steel Board to exercise a general supervision over the iron and steel industry with a view to promoting an efficient, economic and adequate supply of iron and steel products under competitive conditions. The Board was appointed by the Minister of Supply in June 1953 and includes, in addition to the chairman and two other full-time members, a number of part-time members drawn from steel producers, steel consumers and trade unions. The Board has particular powers in relation to research and development, the procurement of raw materials and prices for sales in the United Kingdom.

Under an Agreement dated 21st December 1954 the United Kingdom Government entered into a special relationship with the European Coal and Steel Community.

Non-ferrous Metals

Non-ferrous metals industries in Great Britain employ about 114,000 persons and contribute roughly £100 million to net national output. Apart from a little mining of lead, tin and tungsten, the industry consists of factories for smelting and casting and fabrication by rolling, extrusion and drawing of base metals, of which the most important are aluminium, copper, lead, zinc, tin, nickel and magnesium. Some of these and other non-ferrous metals, such as molybdenum and tungsten, are used in steel alloys, and science is finding new uses for non-ferrous metals of all kinds which are vital to industries as diverse as, for example, production of nuclear energy (uranium), jet aircraft engines (aluminium, columbium, magnesium, titanium), and electronic apparatus (selenium, tungsten, germanium).

In 1954 direct exports of non-ferrous base metals amounted to a value of £56 million, of which copper and its alloys accounted for £23 million and aluminium and its alloys for £12 million.

SHIPBUILDING AND MARINE ENGINEERING

Ships built in British yards for foreign owners in 1954 were valued at £50·4 million, compared with £39·6 million in 1953.

Britain has for centuries been one of the most important shipbuilding countries. Modern shipbuilding dates from the middle of the nineteenth century, when the iron and steam-driven vessel replaced the earlier sailing ship. Britain led the way in the substitution of steel for iron and in the development of the steam turbine, and within the last few years has produced the first ships to be powered by gas turbines. Between 1890 and 1913 Britain produced more than half the world's new tonnage, and in 1920 she launched over two million tons, still the peace-time record for the industry. The problem of surplus capacity and periodic heavy unemployment appeared in all shipbuilding countries during the inter-war years. During the second world war the industry was fully occupied in building and repairing warships and merchant ships of all kinds, and a high level of activity in the building and repair of merchant ships has continued since 1945.

Shipbuilding is mainly an assembly trade, and Britain's economy is well equipped to meet this demand, with a highly developed iron and steel industry to provide plates, sections and angles, a modern marine engineering industry, and a widely diversified pattern of general industry to supply the numerous components that go to the making of a ship.

Well over three-quarters of the tonnage of ships built in the United Kingdom is produced in four areas:

1. On the River Clyde in Scotland (where the *Queen Mary* and *Queen Elizabeth* were built in the inter-war years).
2. On the north-east coast of England—along the lower reaches of the Rivers Tyne, Wear and Tees, and at West Hartlepool.
3. On the north-west coast of England—on the River Mersey and at Barrow-in-Furness.
4. At Belfast, in Northern Ireland, where the largest individual shipyard is situated, and where the *Southern Cross*, a passenger liner of revolutionary design, was launched in 1954.

In each of these areas there is capacity for building warships and all types of merchant ships from large passenger liners and tankers to small sea-going ships such as coasters and cross-Channel steamers. Ships are also built in the Southampton area, in the Isle of Wight, and along the estuaries of the Rivers Forth and Tay, in Scotland, while numerous places along the coast build fishing vessels, yachts, harbour craft and barges.

Repair yards and dry docks are situated in all the great ports and there are important repair facilities in all the shipbuilding areas.

There are many firms engaged in shipbuilding, although nearly half the output of new ships is concentrated in the hands of about a dozen.

In the years 1946 to 1948 British shipyards launched half the world's total new tonnage. Since then, with the recovery of the shipbuilding industries in Germany and Japan and the rebuilding of shipyards in some European countries after their destruction in the war, the British shipyards have built a rather smaller proportion of world tonnage, though total output from the shipyards has been fully maintained. The construction of tankers still accounts for about half the total tonnage under construction in United Kingdom yards.

At the end of 1954 there were about 205,000 employees in the shipbuilding and repairing industries, including those employed in naval dockyards. In addition, there were 80,000 employed in marine engineering.

MECHANICAL ENGINEERING

Mechanical engineering embraces a vast range of products including agricultural machinery, boilers and boilerhouse plant, machine tools, stationary engines, textile machinery and accessories, ordnance and small arms, constructional engineering goods, office machinery, cranes and conveyors. The total number of persons employed in mechanical engineering at the end of 1954 was about 1,066,000 and the value of exports in 1954 was about £450 million.

Agricultural Machinery

The agricultural machinery industry now employs about 50,000 people with an annual output valued at over £100 million. In 1954 it produced, among other implements, 167,000 tractors, 37,000 mouldboard ploughs, 11,200 disc harrows, 20,000 mowers, 6,100 combine harvesters, and 10,200 milking machines. Britain, where production dates virtually from 1933 when the English Ford Company produced 2,788 tractors, now has the largest annual output of tractors in Europe and the second largest in the world, exports the greatest proportion of its output and is the second largest exporter in the world. Exports of agricultural and track-laying tractors in 1954 were valued at £50 million compared with £31 million in 1950. Exports of other agricultural machinery were valued at £16·2 million in 1954 compared with £12·8 million in 1950.

Boilers and Boilerhouse Plant

Boilers and boilerhouse plant manufactured in the United Kingdom have many industrial, commercial and domestic applications. Water tube boilers of advanced design are produced by the industry in large quantities for home power stations and for export. Exports of water tube boilers in 1954 exceeded a value of £14 million. The industry is closely concerned with the development of equipment for nuclear power stations and, in association with electrical machinery manufacturers, is preparing to manufacture and export all the component parts of nuclear power stations.

Shell boilers are used for steam raising and heating purposes in factories and in commercial and domestic buildings. Production of these boilers during 1954 was valued at £10 million, of which more than £2 million worth was exported.

The total number of persons employed in the manufacture of boilers and boilerhouse plant at the end of 1954 was 31,000.

Items of steam-raising plant accessories produced include: plain and corrugated boiler furnaces, forced draught boiler furnaces and grates, stokers, fuel economizers and fireheaters, superheaters and desuperheaters, pulverizers, coal and ash handling plant, soot blower equipment, steam pipework, and feed water heaters. The value of production in 1954 for the industry as a whole was £16 million, of which £2·8 million worth was for export.

Machine Tools

The efficiency of a nation's major manufacturing industries, and the consequent prosperity of the nation, depends to a large extent on the vitality of its machine tool industry. Britain was an early pioneer in the machine tool field, producing some of the first basic types of machines in the late eighteenth century, and this pioneering spirit still prevails today. In the development by a number of leading United Kingdom manufacturers of 'transfer lines', and in the current research into the use of electronic control in the machine tool field, Britain is already looking forward to the not too distant future when the automatic factory may become, not merely a possibility, but a fact. In more conventional designs, also, United Kingdom manufacturers are constantly seeking improvements, and there are big outstanding orders for both home and export, particularly in the range of borers, grinders, lathes and presses.

The machine tool industry consists largely of small independent firms with a high proportion of private companies; it employed an average of 44,000 workers in 1954. The industry is centred mainly in the Midlands, Yorkshire and Lancashire, and to a lesser extent near London and Glasgow. The Machine Tool Trades Association of Great Britain is the representative body of most of the machine tool manufacturers and importers and is responsible for the International Machine Tool Exhibitions held in Britain every four years. The next exhibition will take place at Olympia (London) in June 1956.

The value of production of metal-working machine tools has risen from £6 million in 1935 to £66 million in 1954. Exports in 1954 amounted to a value of £18 million, while orders on hand at the end of 1954 totalled £81 million, of which £21 million worth were for export. Production of woodworking machine tools in 1954 was valued at £5 million, of which £2 million worth was exported, with outstanding orders of a further £2 million.

Steelworks Plant

Britain occupies a prominent position among the steel-producing countries of the world and, therefore, needs a flourishing industry to manufacture plant for the steel industry. About 40 firms produce equipment for manufacturing steel at all stages. In 1945 six of these firms, capable of supplying the entire range of steel-making plant, formed a company under the name of the Metallurgical Equipment Export Company Limited (MEECO), to co-ordinate their export activities and to make it easier for foreign companies to buy steelworks plant from the United Kingdom. Since its formation the group has co-operated to carry out a number of large contracts for equipping steelworks in Sweden, Norway, Spain and France.

Production of steelworks plant in 1954 amounted to a value of £8 million, of which £4 million worth was exported. Orders in hand at the end of 1954 amounted to £16 million, of which £5 million worth was for export.

Textile Machinery

One of the oldest of Britain's mechanical engineering industries is the textile machinery industry which developed rapidly after the introduction of mechanical spinning and weaving towards the end of the eighteenth century. The industry now gives employment to about 66,000 people and comprises some 600 firms making every kind of machine and accessory for processing all types of natural and synthetic fibres. It enjoys a world-wide reputation, not only for the high quality of its products but also because it can offer a complete and modern range of equipment consisting of: spinning machinery, including machinery for all the preparatory processes; winding machinery and machinery for other processes prior to weaving; weaving machinery; knitting, hosiery and lace machinery; printing, dyeing and other finishing machinery; bast and leaf fibre machinery, of which the United Kingdom is still by far the world's largest supplier; and all types of mill stores and textile machinery accessories. In 1954 exports were valued at over £39 million.

To keep its high place as a traditional supplier of textile machinery, the research and design departments of the industry are continuously engaged on research into new and improved methods of textile processing, and are developing machines which speed up production for an increasing variety of yarns and fabrics, including the newer synthetics. A notable recent development, claimed to be one of the most important in the wool textile industry for one hundred years, is the new 'Auto-leveller' for worsted roving preparation, which came into full-scale production in September 1954.

Prefabricated Buildings

The British prefabricated buildings industry, based on long experience dating back in various forms to before 1830, has contributed to solving the problem of housing shortage not only in Britain but in many other countries. In 1954 exports were valued at £2·8 million.

Contractors' Plant

Production in the United Kingdom before the war was mainly concerned with small excavators, concrete mixing machinery and road surfacing plant, including road rollers. But now many new machines, especially for earth-moving, are in production. Examples are industrial crawler tractors, motor graders, scrapers, trenchers, dozer equipment, dumpers, rippers and rooters.

Whereas output in 1935 was valued at only £2 million, in 1954 it reached nearly £25 million, of which nearly £11 million worth was exported.

Recent developments in the manufacture of the heaviest types of crawler tractors, rear and bottom dumpers, motor scrapers, soil stabilizers and mobile crushers will ensure the continued expansion of this industry.

Refrigeration Machinery

This industry falls broadly into three classes—domestic, commercial and industrial. It has made remarkable strides since the end of the second world war. Although before the war production of commercial and industrial refrigeration machinery was well established, domestic refrigeration production, now large, was then quite small.

The 200 firms engaged in the industry employ some 12,000 workers and produce annually goods worth about £28 million (nearly ten times the value of production in 1935), of which about £15 million worth is exported. A full range of refrigeration machinery and equipment is available.

Office Equipment

The office equipment industry is now second in size only to that of the United States and provides an example of remarkable expansion since the second world war. The value of its output is now over £40 million a year compared with about £2 million in 1939, and its exports of office machinery alone were valued at £12·2 million in 1954, of which over £2 million worth went to North American dollar markets.

Petroleum Equipment

Exports of specialized petroleum equipment were extremely small before the second world war. The substantial growth in Britain's post-war export trade in petroleum equipment is a reflection of the remarkable expansion in the oil industry throughout the world. In 1954 British firms received orders for oil equipment valued at £80 million compared with £67 million in 1953. The equipment included drilling and production equipment, tubes, pipe fittings and valves, drums, drumsheets and tinplate. A large but unspecified part of these orders was for use overseas. Apart from the United States, Britain is now the world's chief supplier of oil equipment.

ELECTRICAL ENGINEERING

The United Kingdom electrical engineering industry is engaged in the manufacture, installation and operation of a wide variety of electrical equipment, ranging from giant generators to small domestic appliances. It has produced all the equipment for the United Kingdom's great post-war power station programme and is an important supplier of equipment designed to increase the productivity and efficiency of United Kingdom industry as a whole. At the same time it exports large quantities of power station equipment and other electrical machinery and appliances to many parts of the world. In terms of monetary value it is the second largest exporter of goods from the United Kingdom and one of the two largest exporters of electrical goods in the world. The industry is preparing to manufacture and export equipment for nuclear power stations.

Altogether the industry employs a labour force of more than 600,000.

Electronic Equipment

One of the newest and most vigorous branches of the industry is the manufacture of electronic equipment, including sound radio and television receiving sets, underwater television apparatus, navigational aids, electronic computers and electronic military equipment. Much of the pioneer work in this industry, e.g., the invention of radar and the initiation of the first public television transmission, was undertaken by British scientists and engineers. About 125,000 people are now employed and the value of annual production is about £140 million, of which about £30 million worth is exported.

Electric Wires and Cables

This industry is concerned with the manufacture of cables and wires, including submarine cables, for the distribution of electric power and for the telephone and telegraph network.

At the end of 1954 employment totalled 61,000. During 1954 the United Kingdom produced £95 million worth of insulated wire and cable, of which £23 million worth was for export.

VEHICLES

Of the metal-using industries the vehicles group makes the largest contribution to the export trade (some £402 million in 1954). At the end of 1954 it employed 1,176,000 people, including 324,000 in the manufacture of motor vehicles and cycles, 239,000 in the manufacture and repair of aircraft, 165,000 in the manufacture of parts and accessories for motor vehicles and aircraft and 165,000 in the manufacture and repair of locomotives, railway carriages and wagons.

Motor Vehicles

In size and value the vehicles industries are headed by the motor vehicles industry, which comprises the manufacture of cars and commercial vehicles other than tractors. Exports in 1954 (including parts) were valued at £239 million. Britain is the world's largest exporter of these products, and has been responsible for some of the latest technical advances, such as the application of the gas turbine engine to motor car propulsion, for which at least four British manufacturers have patents.

On the production side, some of the new assembly plants in Britain, electrically controlled and using the minimum of labour, may stand comparison with similar plants anywhere in the world for efficiency and reliability.

Output rose rapidly between 1948 and 1950, fell back in 1951 and 1952, and climbed again in 1953 and 1954. In 1954 the United Kingdom produced the record total of 769,000 passenger motor cars and chassis, of which 52 per cent were for export, and 260,000 commercial vehicles and chassis, of which 49 per cent were for export.

The industry is located mainly in the Midlands, in London and in south-east England, but is represented in most regions. Motor vehicle producers may be divided into four main groups: (1) the 'Big Five', which control between them 12 establishments producing over 90 per cent of the output of cars and light vehicles; (2) specialist producers of cars; (3) specialist producers of cars and commercial vehicles; (4) manufacturers of commercial vehicles excluding the 'Big Five' and specialist producers. The largest firm in the first category, the British Motor Corporation, was formed by a merger of the Austin and Nuffield Companies in 1952, with the object of obtaining economies and standardization. With assets totalling £108 million, the British Motor Corporation is the fourth largest motor manufacturing group in the world, representing some 37 per cent of British output of cars and commercial vehicles. Capital expansion plans involving more than £120 million over the next five years were announced by the leading manufacturers in October 1954.

The principal trade association in the industry is the Society of Motor Manufacturers and Traders (SMMT), founded in 1902, which holds in London a Motor Exhibition annually and a Commercial Motor Exhibition every two years.

Research is carried out at Lindley, Warwickshire, by the Motor Industry Research Association, an autonomous body founded in 1946 and partly financed by the Department of Scientific and Industrial Research (DSIR) but mainly by the industry and the SMMT; and also by DSIR's Mechanical Engineering Research Laboratory at East Kilbride, Scotland.

Motor Cycles and Pedal Cycles

In 1954 the United Kingdom's output of motor cycles totalled 180,000 of which 39 per cent was for shipment overseas. The total value of United Kingdom production, including parts and accessories, was £24 million. Exports totalled almost £10 million in value.

Output of pedal cycles in 1954 totalled 3,300,000, of which 66 per cent was for export. The value of exports of pedal cycles and parts and accessories in 1954 was £25 million.

Aircraft

British contributions to aeronautical science have been numerous from the early nineteenth century, when Sir George Cayley founded the science of aerodynamics, to the twentieth century, when the use of a gas turbine for jet propulsion, for which Sir Frank Whittle was granted a patent in 1930, came to fruition with the flight of the first jet-propelled aircraft on 15th May 1941. Since the second world war, the United Kingdom aircraft industry (which dates from 1905) has concentrated mainly on the development and production of gas turbine aircraft for civil and military purposes, although a range of piston-engined types is still produced. Over the period 1951–54 the United Kingdom produced 1,930 civil aircraft. In 1954 the value of United Kingdom exports of aircraft and aircraft parts (excluding engines and electrical parts and appliances) was £31 million.

A new private company entitled Air Finance Ltd. (see p. 293) was formed in September 1953 to assist aircraft manufacturers to promote exports.

The manufacture and repair of aircraft employs 239,000 people compared with 146,800 in 1948, 1,800,000 in 1944 (the war-time peak) and 36,000 in 1935.

The representative body of the United Kingdom aircraft industry is the Society of British Aircraft Constructors, founded in 1916. Its annual exhibition and flying display held at Farnborough is a fixture of international importance.

The greater part of fundamental research on problems of aerodynamics, structures and engines is carried out by the Ministry of Supply. Much of this research is carried out at the Royal Aircraft Establishment at Farnborough and at the National Gas Turbine Establishment also at Farnborough. This work is done in collaboration with the industry and results are made known to manufacturers, who are in close and constant touch with the Ministry's establishments. In addition, the National Physical Laboratory undertakes research on aerodynamics. The actual design, construction and initial testing of aircraft are, however, carried out by the manufacturer. British technical achievements in recent years include the by-pass type of engine (the first distinct step forward in the evolution of the aircraft gas turbine engine), the delta wing, and the first experimental machines to be capable of vertical take-off from a normal horizontal position and of supersonic speed in level flight and while climbing.

Railway Vehicles

Britain was the first country to develop the locomotive railway and British engineers pioneered railway development in most parts of the world.

Locomotive production in Britain has come to be divided into two separate sections: one of these comprises the locomotive works of British Railways, and is engaged in building and repairing locomotives and rolling-stock for their use; the other consists of private firms providing locomotives of all types for export, and steam, diesel shunting and industrial types for home use. At the end of 1954 about 81,000 persons were employed in locomotive manufacture and 84,000 in the manufacture and repair of railway carriages and wagons.

In 1954 the United Kingdom produced 583 steam locomotives, of which 278 were for export, and 687 diesel and diesel-electric locomotives, of which 377 were for export. In addition, 6 electric locomotives were produced for United Kingdom main line railways. Output of coaching vehicles (including rail motor vehicles) in the same year amounted to 2,400, and output of wagons to 62,000. The total value of United Kingdom exports of railway vehicles in 1954 was £44 million.

MISCELLANEOUS METAL PRODUCTS

At the end of 1954 the number of persons employed in the industries coming under this heading was as follows:

	Thousands
Tools and cutlery	47·5
Bolts, nuts, screws, rivets, nails, etc.	41·8
Iron and steel forgings	39·4
Wire and wire manufactures	37·9
Hollow-ware	60·7
Brass manufactures	50·4
Other metal industries	233·6
TOTAL	511·3

Some of these industries are of considerable export importance. For example, in 1954 the United Kingdom exported £17·9 million worth of implements and tools (excluding machine tools).

Cutlery

At one time the production of cutlery was spread fairly widely throughout England, but gradually it centred in the river valleys around Sheffield. When steam replaced water as the motive power, the industry began to move in towards the centre of Sheffield. The production units were very small and the industry was built up on the high degree of skill of its craftsmen. The introduction of modern machinery has largely replaced hand forging, and mass production methods are now used by some firms in producing the cheaper range of products. The highest quality wares, however, are still produced by the skilled craftsmen. Although in recent years there has been some increase in the size of the production units, they remain mainly small, and, of the 400 firms manufacturing cutlery, some 200 still employ fewer than ten persons.

The annual output of the industry is now valued at about £8·9 million, of which £4 million represents exports, mainly to Australia, Canada, the United States, and South Africa.

Domestic Hollow-Ware

This industry is mainly located in the Midlands, although some production is also carried out in Lancashire, Yorkshire, South Wales and London. Hollow-ware production covers a wide range of goods and these are roughly divided into six classes: wrought steel (including galvanized, enamelled and tinned), aluminium, tin and terne plate, cast iron, copper and other metals. There is, however, an increasing development in the comparatively recent production of plastic hollow-ware. There are some 300 firms known to be manufacturing domestic hollow-ware and these vary considerably in size.

The annual production is valued at about £19·3 million, of which £4·9 million represents exports, mainly to Commonwealth countries. Although aluminium hollow-ware accounts for the greater value of total production, export sales are highest for enamelled ware.

Hand Tools

The manufacture of hand tools is one of the oldest industries of the United Kingdom. From the time when prehistoric man first learned how to fashion tools from iron, hand tools of an ever-increasing diversity and precision have been made in Britain, and today, over 400 different types—in many thousands of sizes and patterns—are made in its factories.

Production of hand tools falls broadly into the following groups: agricultural and other heavy edge tools (including scythes and sickles); engineers' and mechanics' tools (including jacks and spanners); light edge tools (builders' and joiners' tools); files and rasps; saws (hand, tenon and cross cut); and pliers, pincers and nippers.

There are about 400 firms, employing more than 18,000 operatives, in the industry. Approximately 65 per cent of the total production comes from the Sheffield area, 30 per cent comes from Birmingham, and most of the remainder from London and Lancashire.

The industry has expanded considerably since before the second world war, output having risen from a little over £5 million in 1937 to an estimated level of about £25 million in 1954, of which about £12 million worth was exported. Two-thirds of the exports go to Commonwealth countries.

CHEMICALS

It is difficult to define the chemical industry since, with the increasing dependence of industry generally on synthetic raw materials, its scope is continually widening. But on the broadest definition the industry includes the manufacture of such products as acids, alcohols, alkalis, industrial gases, explosives, fertilizers, dyestuffs, soaps and detergents, plastics materials, paints and pharmaceuticals. Manufacturing these and other products, the chemical and allied trades employ about half a million people and contribute about a tenth of the total output of all manufacturing industry. Exports of chemicals are also substantial, amounting in 1954 to a value of £204 million, or some 7½ per cent of total United Kingdom exports.

British pioneers made great contributions to the science of chemistry, as the names of Robert Boyle, Joseph Priestley, Michael Faraday and John Dalton testify. Contemporary British chemists who maintain the tradition include Sir Robert Robinson (who has done outstanding work on vitamins and hormones), and Dr. A. J. P. Martin and Dr. R. M. Synge (who were awarded the Nobel prize in 1952 for their work in developing chromatography, a method of separating chemical substances).

Matching progress in science and the increasing demands of other industries, the British chemical industry has expanded considerably during the present century. More particularly, recent years have seen a rapid growth which has brought the industry's volume of production up to more than two and a half times its pre-war level. This post-war expansion has been most marked in two fields—production of plastics materials generally, and the large-scale manufacture of a wide range of organic chemicals from petroleum. In the latter field, nearly £44 million has already been invested in seven major petroleum chemicals plants and plans for a further considerable expansion are in hand.

Heavy Chemicals and Dyestuffs

The heavy chemicals sector covers a wide range of acids, alkalis, alcohols, gases and other basic chemical substances, many of which are fundamental to other branches of the chemical industry as well as to other industries. One of the main products, sulphuric acid, is now manufactured to an increasing extent from indigenous deposits of anhydrite (calcium sulphate) instead of from imported sulphur. Since the war there has also been a greatly expanded production of raw materials for the manufacture of synthetic detergents, while trichlorethylene has been in big demand in the engineering trades for mechanical degreasing plants. The dyestuffs industry also continues to add to the already vast and comprehensive range of its products, many of them developed from pioneer British discoveries in the nineteenth and twentieth centuries. Exports of synthetic organic dyestuffs and pigments reached in 1954 the record level of £11·3 million.

Plastics

The first plastic, 'Parkesine', was produced in Britain in 1865 by Alexander Parkes. Modern plastics originating in Britain include 'Perspex', polythene and 'silicones'. (Silicones, which were discovered by Professor Kipping at Nottingham, were developed in the United States and are now being made at two new British factories.) Since 1939 there has probably been a sixfold increase in the overall production of plastics materials, although expansion during the last few years has been concentrated on polythene (used in cable coverings, packaging and domestic mouldings), polystyrene (a cheap non-inflammable material used for toys, light mouldings and, more recently, in durable consumer goods), and polyvinyl chloride (known as PVC, and made into industrial conveyor belting as well as a variety of other consumer goods such as raincoats and curtains). Total exports of plastics materials were higher than ever before in 1954, amounting in value to over £20 million.

Fertilizers

The production of fertilizers owes much to the pioneer work of the British scientists, Sir John Lawes and Sir Joseph Gilbert, and the research now carried on in the United Kingdom at Rothamsted and at the Macaulay Institute, Aberdeen, is of world-wide importance. In 1954 total exports of fertilizers were valued at £7 million.

Pesticides

Important British discoveries in the last fifteen years have led to major developments in the production of selective weed-killers such as methyl chloro phenoxy acetic acid (MCPA), and of insecticides based on benzine hexachloride (BHC). Oversea markets take the major proportion of United Kingdom production of these and other well-known pesticides such as DDT, systemic insecticides and copper sulphate, exports of which amounted in all to some £9 million in 1954.

Pharmaceuticals and Perfumery

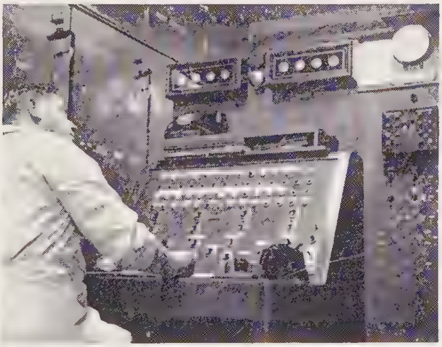
About three-quarters of the pharmaceutical products sold today have been introduced in the past twenty years. These products include sulphonamides, antibiotics (e.g., penicillin), hormones, anti-malarial drugs (e.g., paludrine), liver extracts, anti-histamines and anti-tubercular drugs. About £2 million a year is spent on research. Total exports of medicinal and pharmaceutical products amounted to a value of £33·6 million in 1954, while exports of perfumery and toilet preparations, including soaps and detergents, were £20·9 million in value.

Isotopes and Radioactive Materials

Isotopes and radioactive materials, used in medicine, agriculture and industry, are a by-product of nuclear reactors, and in the United Kingdom they are produced at the Atomic Energy Research Establishment at Harwell and dispatched from there and from the Radiochemical Centre at Amersham (see p. 380). In 1954 Britain produced 19,531 isotopes, compared with 135 in 1947, and exported 7,252 of them (more than all other countries put together) to 41 countries including Canada and the United States. An important factor in the growing sales of isotopes has been their reasonable price; the average value of each dispatch from Amersham in 1954 was £20. From 15th August 1955 the prices of two of the most important radioactive isotopes used in medicine—iodine 131 and colloidal gold 198—were reduced by the Atomic Energy Authority as a result of improved manufacturing efficiency and continuing growth in demand.

TEXTILES AND CLOTHING

The value of exports in the textiles and clothing group as a whole, including manufactures of wool, cotton, linen, jute, silk, rayon and synthetic fibres, lace, hosiery, woven apparel and carpets, amounted in 1954 to £358 million, or 13 per cent of total United Kingdom exports. About 1½ million people were employed in these industries in December 1954, including about 300,000 in the cotton textile industry, 212,000 in the wool textile industry, 91,000 in rayon and nylon production and weaving and silk, 93,000 in textile finishing, etc., 126,000 in hosiery and other



The operator at the control panel, *centre*, is controlling the flow of parts in the assembly of cars at the British Motor Corporation assembly plant at Longbridge, near Birmingham, one of the most highly mechanized plants in Britain. The other pictures illustrate the flow of bodies and their attachment to engines, axles and other parts in the final stages of assembly.

BRITISH RAILWAYS LOCOMOTIVES: above, the *Deltic*, a single-unit diesel-electric locomotive of 3,300 horse-power, which has a service speed of 90 m.p.h. and can be geared to reach 125 m.p.h.

Gas-turbine locomotive No. 18000.

Manchester–Sheffield electric line (see p. 223).

Standard steam locomotive No. 92003.

Standard diesel-electric shunter No. 13005.

knitted goods, about 170,000 in other textiles, and 497,000 in clothing (excluding footwear).

Cotton

Spinning and weaving of cotton for the making of fustian with a cotton weft and linen warp began to assume importance in the United Kingdom in the sixteenth century; but it was the invention of mechanical spinning and weaving in the second half of the eighteenth century that led to cotton becoming Britain's chief consumer goods industry and cotton piece-goods its largest export during the nineteenth century.

In the twentieth century increasing foreign competition and the tendency of many countries, notably India, to set up their own textile industry cut progressively into British markets. During the second world war numbers of mills were closed and, though many have since been brought back into production, the industry still employs only about two-thirds as many workers as in 1937. It remains, however, one of Britain's largest consumer goods industries, and plays an important part in the export trade.

Since the war a vigorous drive for quality and efficiency has been pressed forward by the industry with support and assistance from the Government. Important in this drive are the Cotton Board, a statutory body with the constitution and powers of a Development Council, and the British Cotton Industry Research Association (Shirley Institute), founded in 1919 for promoting scientific and technical research in connection with cotton and its utilization. The industry now uses a considerable and increasing amount of rayon as well as cotton, and its dependence on imported raw material has thus been reduced.

Most of the industry is located in south and east Lancashire, Manchester occupying a special position as its commercial centre.

There were about 168,000 persons employed in the spinning and doubling section of the industry in December 1954 and 122,000 in weaving. About two-thirds of the workers in the industry are women.

Production rose steadily from 1945 until the end of 1951, when the industry began to feel the effects of the world textile recession. It did not begin to recover until the second half of 1952; and in 1954 it was still well below the 1951 post-war peak figure, which was itself below the 1937 level.

In 1954 exports of cotton yarn and woven fabrics were valued at £112 million, or about 4 per cent of total United Kingdom exports.

Wool

The wool textile industry is the most ancient of Britain's staple industries and has been an important source of wealth since medieval times. There are two main branches —woollen and worsted. While over 80 per cent of woollens and over 90 per cent of worsteds are made in Yorkshire, Scotland and the West of England have retained their importance as specialized producers of high quality woollen cloth. The woollen side of the industry is normally organized on a vertical basis, with each firm undertaking the full process of manufacture from raw material to finished product, but for a variety of reasons the worsted industry is mainly organized horizontally—combing, spinning and weaving being done by separate firms. Small firms employing fewer than 300 workers predominate in the industry. Output reached a post-war peak at the end of 1950. In common with other textile industries, there was a downward trend for most of 1951, and the first half of 1952 was a period of much reduced activity, but production recovered thereafter.

The wool industry remains one of Britain's leading export industries; the total value of exports of wool tops, woollen and worsted yarns and woven fabrics in 1954 was about £118 million, of which about £25 million represented exports to the United States and Canada. In addition there were considerable exports of wool in various forms including carpets and clothing.

Research is carried on mainly by the Wool Industries Research Association, which is financed partly by a statutory levy on the industry and partly by a grant from the Department of Scientific and Industrial Research.

Other Textiles

Linen has been made in Britain for more than a thousand years and it is believed that the art of linen weaving was already being practised during the seventh century. Today it is an industry of small firms, chiefly in Northern Ireland (the greatest linen manufacturing region in the world). The principal raw material of the industry is flax, which is mainly imported (the chief supplier is Belgium), but in England and Scotland particularly a certain amount of soft hemp and jute is used. In Scotland the industry is concentrated in the eastern part of the country and specializes in the production of coarse linens and light canvas, probably because of its association with jute and hemp. Technical problems are investigated by the Research Institute of the Linen Industry Research Association, formed in 1919. Exports in 1954 were valued at £12 million, the United States being the chief market.

Jute, most of which comes from India and Pakistan, is the raw material for a considerable industry centred in Dundee. Jute cloth is used for sacks and bags, tarpaulins and backing for linoleum; yarns are sold for carpet backing and for twine and cordage.

Silk exports were valued at about £1 million in 1954. Raw silk is supplied mainly from Japan and Italy.

Rayon is produced from cellulose, either in the form of woodpulp or cotton linters. Its early development took place to a large extent in Britain. Production is spread throughout the Midlands and Lancashire, with outposts in other areas. There are nine companies engaged in the production of rayon, five producing only viscose, three producing only acetate, and one both viscose and acetate. Technical problems are studied at the research station of the British Rayon Research Association at Wythenshawe, Manchester.

Nylon is produced from a combination of chemical substances, most of which are obtained from indigenous raw materials. It was introduced in the United States in 1938 and came into use in Britain in the second world war for parachutes. It is now in large-scale production in Britain for general textile and industrial purposes. Annual capacity at the end of 1955 is expected to be about 30 million pounds.

'*Terylene*', a product of research in the laboratories of the Calico Printers' Association, Manchester, is at present being made in Britain by Imperial Chemical Industries Ltd (ICI). A £20 million plant at Wilton, Yorkshire, is now in limited production and is expected to be fully in operation in 1957. ICI is also setting up a 'Terylene' plant in Canada, and the fibre is to be made under licence in France, the German Federal Republic, Italy and the Netherlands.

'*Ardil*' and '*Fibrolane*' are protein fibres with wool-like properties. 'Ardil' was evolved in the Scottish laboratories of ICI Ltd. Experimental quantities were first produced in 1938 and a plant with a capacity of about 20 million pounds a year, started in 1949, is now in production. 'Fibrolane' is manufactured in commercial quantities by Courtaulds Ltd.

Since the advent of rayon in its various forms and, more recently, of the new synthetic fibres, British textile manufacturers have been developing a number of ways of blending these with natural fibres and with each other. By this means they can produce economically fabrics and garments with attractive and useful new combinations of texture, colour, and finish, and with moisture-absorbent, hard-wearing and crease-resisting properties.

FOOD, DRINK AND TOBACCO

At the end of 1954 the number of persons employed in this broad group of industries was as follows:

	Thousands
Grain milling	39·8
Bread and flour confectionery	185·0
Biscuits	63·1
Meat and meat products	44·5
Milk products	59·7
Sugar and glucose	23·1
Cocoa, chocolate and sugar confectionery	113·8
Preserving of fruit and vegetables	70·0
Other food industries	77·4
Brewing and malting	88·5
Wholesale bottling	31·1
Other drink industries	42·5
Tobacco	42·2
TOTAL	880·7

From the export point of view the most important products of these industries are: whisky (exports of which had a total value of £39 million in 1954); refined sugar (£27 million); tobacco and tobacco manufactures (£22 million); and chocolate, chocolate preparations and sugar confectionery (£16½ million). Whisky is one of the United Kingdom's largest individual dollar earners. Scotch whisky, which was first distilled at least as far back as the fifteenth century, is now of world-wide popularity. Modern whiskies are blends of twenty or more different kinds, some made from malted barley, others from other grains.

Bread and Flour Confectionery

About 90 per cent of the bread eaten in Great Britain is price-controlled national bread. It is sold at below the economic price and bakers receive a subsidy to make good the difference. The average weekly consumption of bread per head of population is slightly under 3½ pounds. In England and Wales particularly, the small 'family' type of baker, producing bread by hand or by semi-mechanical methods, is still very prevalent, but there is an increasing trend towards large-scale production in fully mechanized bakeries. In the smaller bakeries, flour confectionery is usually allied to bread production but there are many large specialist manufacturers, particularly of slab cake. Exports of flour confectionery in 1954 amounted to 617 tons, having a total value of £169,517.

Cocoa, Chocolate and Sugar Confectionery

The chocolate and sugar confectionery industry is composed of a small number of very large manufacturers and a large number of small manufacturers, and the products of the industry are highly competitive and heavily advertised. Approximately 97 per cent of the production of chocolate and sugar confectionery in the United Kingdom and the whole of the output of cocoa powder, cocoa butter and chocolate covering is produced by about 600 manufacturers and the remaining 3 per cent of chocolate and sugar confectionery output is produced by about 1,200 small firms. The main ingredients used by the industry for the manufacture of chocolate and sweets are sugar, glucose, oils and fats, milk, and cocoa beans, and there are virtually no restrictions at the present time on the purchase of these materials in the United Kingdom. Production of chocolate and sugar confectionery continues to expand, and in the year 1954 over 633,000 tons of finished goods were manufactured for sale in the home and oversea markets compared with about 580,000 tons in 1953. Total home trade sales of chocolate and sugar confectionery to the general public in 1954 were equivalent to 8·5 ounces per head of the population per week as compared with 8·1 ounces in 1953, 5·7 ounces in 1952 and 7 ounces per head before the war. The value of the industry's total export of chocolate and sugar confectionery and cocoa products in 1954 amounted to approximately £16½ million and constituted a record. In the same year exports of these commodities to the dollar markets had a total value of £5½ million; this figure was also a record. The industry employs over 113,000 men and women in the manufacture of chocolate and sugar confectionery and cocoa products for both the home and export trade.

Brewing and Malting

Brewing. There are some 300 separate breweries located throughout the United Kingdom, of which the main centres are London, south Lancashire, Burton-on-Trent (Staffordshire), Birmingham, and Edinburgh. In the main, brewers distribute their beer for consumption within 30 miles of the brewery, but some of the largest brewers send their beer all over the country. Much of the beer is consumed in draught but in recent years the demand for bottled beer has increased and is now probably as much as one-third of total consumption. Bottling is carried out by both brewers and independent bottling establishments. There are no shortages of the industry's raw materials, which are malt (chiefly made from home-grown barley), sugar and hops. Consumption is declining, probably because of the high rate of duty. Nevertheless in the year ended 31st March 1954 duty of £255·3 million was paid on 25·2 million bulk barrels. Since the war the industry has maintained a useful export trade, which in 1954 was valued at £2·8 million.

Malting. There are in the United Kingdom about 900 malting units. Some of these are operated by brewers who make part of their own malt. The remainder are operated by maltsters who produce chiefly for the brewing industry but also supply the distilling industry and some food industries, such as bakery, vinegar-making and malt extracts. There is also a limited production for the textile industry. These units are mainly situated east of a line drawn from Edinburgh through Burton-on-Trent (Staffordshire), to Lyme Regis (Dorset), that is, in the chief barley-growing areas. Of the total malting capacity, 60 per cent is in the eastern half of England, 13 per cent in Staffordshire (nearly all at Burton-on-Trent and in the neighbourhood), 12 per cent in Scotland (mainly Edinburgh) and 15 per cent in the remainder of the United Kingdom.

Malting usually takes place in the cooler months following the harvest but with the aid of air-conditioning plant some units can operate throughout the year. Grain is the only raw material used by the industry and while there are no restrictions on imported grain, maltsters chiefly use home-grown barley, especially grown for the purpose. Exports of malt in 1954 were valued at £1·2 million.

Tobacco

In recent years, over £800 million annually has been spent in Britain on cigarettes and other tobacco goods (of which over two-thirds was revenue). The tobacco manufacturing industry meets virtually the whole of this home demand and, in addition, exports worth over £22 million are shipped annually to a large number of oversea markets. Over 42,000 people are employed in the tobacco industry, which is concentrated in Nottingham, Bristol and London. The industry uses nearly 300 million lb. weight annually of raw tobacco, all of which is imported. The main sources are the United States, Rhodesia, India and Canada, in that order.

Most of this tobacco goes to make cigarettes and pipe tobaccos. There is, in addition, production of cigars and snuff; cigars, chiefly Cuban and Jamaican, are also imported.

MISCELLANEOUS INDUSTRIES

This broad heading covers a very wide variety of industries and groups of industries. Employment at the end of 1954 was as follows:

	Thousands
Bricks and fireclay goods	84·9
China and earthenware	78·4
Glass	71·5
Cement	15·9
Other non-metalliferous mining manufactures	90·2
Precision instruments, jewellery, etc.	141·6
Leather, boots and shoes, and fur	212·9
Manufactures of wood and cork	307·4
Paper and printing	541·7
Rubber	119·8
Other manufacturing industries	165·1
TOTAL	1,829·4

Notes on some of these industries are given below.

Brickmaking

Introduced by the Romans, brickmaking is one of Britain's oldest industries, and something like 2,000 different varieties of building bricks are produced in the United Kingdom today. These are made in over 1,000 active works which range from small seasonal yards using traditional hand methods to highly mechanized plants some of which are among the largest and most efficient of their kind in the world. The industry has made a vigorous recovery from the reduced activity enforced on it during the war years, and its total output now exceeds 7,000 million bricks a year. Very little of this output is exported, as the current high levels of building activity in the United Kingdom demand nearly all the industry can produce.

Refractories

Refractories occupy a key position among the basic industries of Britain, for without the materials of furnace construction few, if any, high temperature processes, as carried out at present, would be possible, and the development of metallurgical, glass, ceramic and fuel industries would have been hampered. Recent developments in the fields of atomic energy and jet propulsion are also creating a demand for new and improved refractory ceramics. Not only do refractories have to resist heat and protect the furnace structure, but they are also expected to resist the chemical attack of slags and fluxes, to withstand temperature changes without fracture, to contain hot and erosive charges, and to radiate and transfer heat.

Refractories are essential in the operation of blast furnaces, steel furnaces and other metallic furnaces; in the refining and manufacture of copper, zinc, aluminium and other non-ferrous metals; in coke ovens; in the production of electricity; in the construction of locomotive fireboxes and ships' boilers; in the production of glass and cement; in the building of kilns for all the ceramic industries; and in many chemical processes.

Refractories are made in the form of bricks and in a wide range of other shapes, according to the requirements of the furnaces and processes in which they are to be used. They also take the form of cements and compositions. Most of the raw materials required for the production of refractories, e.g., fireclay, silica and dolomite, are indigenous; and most of the magnesite is obtained from seawater. Other raw materials used in much smaller quantities are imported, e.g., chrome, kyanite and bauxite.

The chief centres of the industry are in the Midlands, west Yorkshire, north-east England, Scotland, and Wales, but there are also undertakings in other parts of the United Kingdom. The principal trade association is the National Federation of Clay Industries, founded in 1928.

Production of refractories of all kinds has averaged about 2 million tons a year since 1948, mainly for home consumption. Exports in 1954 were valued at about £2½ million.

Pottery

The pottery industry is one of the oldest craft industries in Great Britain; the making of domestic pottery dates back to before the Roman occupation. The chief raw materials, china clay, ball clay and china stone, are to be found mainly in Devon and Cornwall where known deposits of high quality are expected to last for at least 100 years.

The Stoke-on-Trent area in Staffordshire, comprising the six towns of Stoke, Burslem, Tunstall, Hanley, Fenton and Longton, is the centre of the industry and contributes between 75 and 80 per cent of total production. Important factories are also to be found in Worcester, Derby, Bristol and Poole.

Before the second world war about one-third of the production of domestic pottery was sold overseas. Of the £31 million worth of pottery produced in 1954, nearly one-half was exported; bone china accounts for about one-third and earthenware for two-thirds of these exports. The chief markets are North America, Australia and South Africa. About three-quarters of all bone china exports go to Canada and the United States, and while dollar exports of decorated earthenware are about the same in value, they form a smaller percentage of production.

The modern industry benefits from a tradition of good design and craftsmanship, made world-famous by a long line of great British potters, which is the basis of the large oversea and domestic demand for its products. Among the famous makes of British pottery are: Wedgwood, Spode, Royal Worcester, Royal Doulton, Minton, Royal Crown Derby and Coalport.

Sanitary Drain Ware

Other branches of the clay industries produce sanitary ware and stoneware pipes. Sanitary ware comprises fixtures such as sinks, bath tubs, lavatories, closet pans and similar products. Metals and plastics are now being increasingly used, but there is still a very large production of sanitary ware in fireclay, earthenware and, to a lesser extent, vitreous china. The products are of a high technical standard for which there are exacting British Standard Specifications. Stoneware pipes, also, are made to exacting specifications for carrying away sewage and other corrosive drainage in sanitation schemes. These pipes are made from clays rich in silica, highly vitrified and salt-glazed. They are produced in several districts, mainly by extrusion presses which have superseded the potter's wheel. Exports of sanitary and drain ware in 1954 were valued at a total of £3·1 million.

Plate and Sheet Glass

Britain has a large and efficient glass industry with a wide diversity of products. The section of the industry devoted to the manufacture of plate and sheet glass in their various forms is organized for quantity production, and the development of modern methods has enabled the industry to cater for an increasing range of requirements. Glass can now be supplied in sheets of great size and can be made almost unbreakable. Its use for internal decoration and as a finish for internal and external walls has greatly extended in recent years. Large quantities of safety glass are produced for the motor industry. Exports of plate and sheet glass of all types had a total value of £7·2 million in 1954.

Cement

The cement industry of the United Kingdom is chiefly concerned with the manufacture of Portland Cement. Invented by Joseph Aspdin and patented in 1824, this material and the methods of its production have been the subject of continuous technical improvement and intensive research. Cement is today one of Britain's key industries for all building and civil engineering. The capacity of the industry has increased substantially since the war. Annual output reached 7·7 million tons in 1938. By 1954 it had become 12 million tons, and it continues to expand. Despite a high and rising level of home demand, the industry maintains its position as the largest exporter of cement in the world with markets in over 40 countries. In 1954 the value of these exports totalled £10·9 million.

Scientific Instruments

Scientific instruments, including compasses and microscopes, were made commercially in Britain at the beginning of the seventeenth century and probably earlier.

During the second world war there was a marked expansion of the industry to meet defence needs. Since 1945 its production has further increased to meet the pent-up demands from home and overseas for instruments for use in research and in industry, where their extended use has become recognized as essential to efficiency. Some 89,000 people, mostly skilled craftsmen, are now employed. In 1954 goods of a wide variety, including photographic, cinematographic and commercial types of instruments and apparatus, to the value of approximately £31·4 million were exported directly, excluding indirect exports of instruments as part of plant and equipment.

Jewellery, Gold and Silver Ware

The making of jewellery, gold and silver ware is an industry in which British craftsmen are heirs to a great tradition. The quality of the metal in gold and silver wares made or sold in the United Kingdom is guaranteed by a 'hall-mark'. The law requires that gold and silver plate shall not be sold until it has been hall-marked at one of the Assay Offices. These are in London, Birmingham, Chester, Sheffield, Edinburgh and Glasgow.

The importance of maintaining definite standards of fineness for wares of gold and silver has always been recognized, and the Goldsmiths' Company in London has carried out the assay and hall-marking of such wares since 1327 when Edward III gave the Company its first charter.

At the end of 1954, 28,000 persons were employed in the manufacture of jewellery and plate and in the refining of precious metals.

Leather and Footwear

The British leather and leather footwear industries are among the most important in the world and Britain is the world's largest exporter of both leather and leather footwear. The value of exports in 1954 totalled £12 million and £8 million respectively. Despite the growing use of rubber and of plastics and other synthetic materials in clothing, footwear and personal articles, leather possesses intrinsic qualities which enable it to hold its own. Both industries are striving to maintain and improve their competitive position and they are assisted by the work of the British Leather Manufacturers' Research Association and the British Boot, Shoe and Allied Trades Research Association, which are furthering the application of technology in these industries based upon traditional craft.

At the end of 1954, about 63,000 persons were employed in the leather and leather goods industries, while 121,000 were employed in the manufacture of boots and shoes.

Paper and Board

The manufacture of paper in Great Britain was not firmly established until 1678, but records show that some paper was produced as far back as the year 1492. Until 1803 all paper had been made by hand, but in that year a machine was invented to produce paper in a continuous web. In the succeeding half-century various processes were developed for producing woodpulp, and it was during this period that esparto grass was first used as a paper-making material.

Today there are many different materials used in the manufacture of paper and board: i.e. woodpulp, esparto grass, straw, waste of hemp, flax and jute, rags and waste paper; and the consumption of these materials now totals some 3·3 million tons a year, of which about two-thirds comes from abroad. The other third consists mainly of domestic waste paper, and consumption of this material, mostly in the production of board and the cheaper types of paper, is over one million tons a year. Total production in 1954 of all types of paper and board (including newsprint) amounted to over 3 million tons, the highest figure ever reached, compared with a pre-war figure of 2·6 million tons. Of this, newsprint accounted for 612,000 tons as against 800,000 tons pre-war. Exports for the same period amounted to 277,000 tons valued at £33 million, an increase of about 400 per cent by value over 1938. Included in this amount is 127,000 tons of newsprint with a value of £7 million. The bulk of the export trade is to countries in the sterling area, mainly to Australia, South Africa, New Zealand and the Irish Republic.

During the second world war, the industry suffered a serious setback by the loss of many paper-making machines through enemy action, but in spite of this it has made a great recovery by the installation of new machines and the modernization of existing plant. Today the industry comprises some 209 mills producing almost every type of paper and board, including the world's largest paper machine producing a web of newsprint 302 inches wide. There are also many firms engaged in the conversion of paper and board for various purposes. In addition, the industry has considerable interests abroad, with pulp and paper producing mills in the

United States, Canada and other parts of the Commonwealth, and in the Scandinavian countries.

There has been a considerable amount of research on raw materials and their economical use, new and more efficient methods of generating steam have been introduced, and there is now a much wider use of technical knowledge at the various mills. Already expansion schemes running into many millions of pounds sterling have been announced with the result that within the next few years there will be a large increase in production of paper and board, and especially of newsprint.

Rubber

The United Kingdom rubber manufacturing industry is the oldest in the world, dating from 1819 when Hancock, the inventor of the first method of processing raw rubber on a commercial scale, set up a factory in London. He afterwards collaborated with Macintosh, the inventor of water-proof garments, and it was another Scotsman, Dunlop, who in 1888 devised the pneumatic tyre as it is now used. At the present day, tyres and tubes represent more than half the total output of the industry. More recently British firms have pioneered cellular rubber products, and they also make a great variety of other rubber manufactures, such as rubber footwear, belting, cables, hose and thread.

The industry is second in size only to that of the United States, employing some 120,000 workers and consuming 11 per cent of the world's total consumption of natural and synthetic rubber. There are some 800 firms scattered widely throughout the country. In 1954 they exported £36·5 million worth of goods, two-thirds of this being tyres and tubes. This figure does not take into account the large indirect exports on motor vehicles.

Although the industry is highly mechanized there is still room for craftsmanship, as in the building of a tyre, where perfect quality depends on the skill of the individual. To maintain the technical superiority of the industry, advanced experimental work is carried out at the Shrewsbury laboratories of the Research Association of British Rubber Manufacturers.

VI. TRANSPORT AND COMMUNICATIONS

SHIPPING

Nearly 20 per cent of the world's shipping tonnage of 100 gross tons and over is registered in the United Kingdom, which has the largest merchant navy in active employment. A greater tonnage—27 million—is registered in the United States but over half of this is in the Reserve Fleet. United Kingdom ships probably carry over one quarter of the world's international sea-borne traffic in passengers and goods, and ply regularly on the routes linking the countries of the Commonwealth (see back end-paper map) and also to most of the main ports throughout the world. As an invisible export, the earnings of the United Kingdom shipping services make one of the largest contributions to the United Kingdom's balance of payments; in 1954 this contribution was £132 million. That figure excludes the earnings of the tanker fleet, but takes account of payments for the carriage of United Kingdom imports in foreign ships and the disbursements which foreign ships make in United Kingdom ports.

THE MERCHANT FLEET

As at 30th June 1954, a total of just over 19 million gross tons of merchant shipping (100 gross tons and over and excluding sailing ships and barges) was registered in the United Kingdom. In 1939 the tonnage was 17·9 million and in 1930 was at its highest level of 20·3 million.

Notable trends in the composition of the merchant fleet in recent years have been the fall of tramp tonnage—by one million tons since 1935 to just over three million tons—the growth of tanker tonnage, and the commissioning of vessels specially built to carry ore, sugar and other commodities in bulk. Including Admiralty and other tankers, the United Kingdom accounts for nearly five million gross tons or 20 per cent of the world's total tanker tonnage.

Propulsion

The amount of coal-fired tonnage has fallen in recent years to only a little more than one million tons. Oil has taken the place of coal in steamships, while steam has continued to give place to the diesel engine, about 40 per cent of all tonnage being diesel driven in 1954. The latest development is the investigation being made into the use of gas turbines in ships. In March 1952 the first crossing of the Atlantic using this form of propulsion was made by the tanker *Auris*.

Age Distribution

The age distribution of the fleet as a whole and of tanker tonnage separately is shown in Table 26.

Size Distribution

The size distribution of ships is given in Table 27. About 52 per cent of liner tonnage—passenger and cargo—is in the 6,000–10,000 tons group, and over 68 per cent in the 6,000–15,000 tons group. Tankers are predominantly in the 8,000–15,000 tons group, with a tendency to increased size. Tramps are under 8,000 tons

TABLE 26

AGE DISTRIBUTION OF MERCHANT FLEET, 1954

	All tonnage *per cent*	Tanker tonnage *per cent*
Under 5 years . .	22	37
5–9 years	23	24
10–14 years . .	29	23
15–19 years . .	10	9
20–24 years . .	4	2
25 years and over . .	12	5
	100	100
TOTAL GROSS TONNAGE	19,014,220	4,955,193

Source: *Lloyd's Register of Shipping.*

and mainly over 5,000. Fifty per cent of vessels in the coasting and home trades are in the 1,000–3,000 tons group, only 17 per cent being over that size.

There are four ships of 30,000 tons and over. These are the *Queen Elizabeth* (83,000 tons), the *Queen Mary* (81,000 tons), the *Mauretania* (35,667 tons), and the *Caronia* (34,000 tons) operated by the Cunard Steamship Company on its transatlantic services.

TABLE 27

SIZE DISTRIBUTION OF MERCHANT FLEET, 1954

Tonnage group	All tonnage		Tanker tonnage	
	No. of ships	Gross tons	No. of ships	Gross tons
100 and under 500 . .	2,183	550,400	131	34,331
500 ,, ,, 1,000 . .	819	581,607	60	49,888
1,000 ,, ,, 2,000 . .	464	665,443	25	33,797
2,000 ,, ,, 4,000 . .	353	1,027,951	33	96,421
4,000 ,, ,, 6,000 . .	350	1,814,048	6	32,346
6,000 ,, ,, 8,000 . .	785	5,570,671	66	441,215
8,000 ,, ,, 10,000 . .	408	3,538,965	219	1,868,843
10,000 ,, ,, 15,000 . .	292	3,333,480	174	1,955,397
15,000 ,, ,, 20,000 . .	42	736,645	19	336,821
20,000 and above	44	1,195,010	5	106,134
TOTAL	5,740	19,014,220	738	4,955,193

Source: *Lloyd's Register of Shipping.*

SHIPPING ORGANIZATIONS

Excluding Government-owned tankers, cable ships, passenger ships used as troopers and emigrant ships, and ships owned by the British Transport Commission (see p. 222), the business of merchant shipping in peace time is in the hands of private enterprise. The main organizations concerned with the activities, interests and common problems of the industry are as follows:

The Corporation of Lloyd's

This body, which was founded in the seventeenth century, is a society of underwriters whose main business is marine insurance (see also p. 294).

Lloyd's Register of Shipping

Lloyd's Register is an organization, distinct from the Corporation, which surveys and classifies ships with particular regard to their safety and operational efficiency. It will accept responsibility for surveying and giving technical advice on vessels of all flags from the initial stages of building, at regular intervals during their service, and after casualties. A satisfactory Lloyd's classification is a guarantee to an underwriter that he may accept the risk of a vessel, and this forms a strong link between the Register and the Corporation of Lloyd's.

Shipowners' Organizations

The representative bodies speaking for shipowners generally (excluding, for the most part, owners of fishing vessels) are the *Chamber of Shipping* and the *Liverpool Steamship Owners' Association*. The *General Council of British Shipping* co-ordinates the views of the shipping industry as a whole on all matters of major policy.

There are a number of local associations of shipowners centred around the main port areas. There are, for example, the *Bristol Steamship Owners' Association*, the *London General Shipowners' Society*, and the *North of England Shipowners' Association*. Others represent companies specializing in a particular trade or type of cargo.

Employers' Organizations

The *Shipping Federation* and the *Employers' Association of the Port of Liverpool* are the employers' organizations concerned with labour relations and the regulation of employment throughout the Merchant Navy. They are responsible for the administration of the Merchant Navy Established Service Scheme, under which shipowners engaging crews for ships of 200 tons and above engage them through the Merchant Navy Establishment Administration unless they are prepared to offer two-year Company Service contracts. The Shipping Federation is also responsible for the day-to-day operation of the National Sea Training Schools set up for the purpose of training ratings for the deck and catering departments and as firemen.

Seafarers' Organizations

Shipmasters are represented by the *Mercantile Marine Service Association*; navigating officers, engineer officers, apprentices, cadets, pursers and ships' surgeons by the *Navigators and Engineer Officers' Union*; and radio officers by the *Radio Officers' Union*. Some engineer officers are represented by the *Marine Engineers' Association*, and uncertificated engineer officers by the *Amalgamated Engineering Union*. The interests of the deck, engine-room and catering ratings are represented by the *National Union of Seamen*.

The National Maritime Board

The National Maritime Board is composed of equal numbers of representatives of the shipowners and seafarers and is responsible for all negotiations of wages and conditions of service in the Merchant Navy, although, except by special arrangement, National Maritime Board Agreements do not apply to vessels under 200 gross tons, or to certain other ships, including tugs and salvage vessels. Detailed working of the Board is carried on by a number of 'panels' representing the various interests of those forming the seafarers' part of the Board.

Conferences

British shipping companies operating liners have associated with each other and with the companies of other countries operating on the same routes in a series of 'conferences' designed to secure standardization and stability of rates, and to maintain frequency and regularity of services. The essential principle of a conference is the establishment of a common tariff of freight rates or passenger fares from each port of departure. Each conference meets from time to time to review and revise existing rates, or to compile new ones. Some of the conferences may be connected by rate agreements, or may have joined together to form wider groupings.

The Baltic Exchange

British tramp shipping, and indeed the tramp shipping of the world, is offered and engaged for charter hire in London's Baltic Exchange, where ship brokers and owners meet and arrange contracts for the movement of all types of cargo between any ports in the world.

RELATIONS WITH THE GOVERNMENT

The relations of the State with merchant shipping go back as far as 1381 when the first of a series of Navigation Acts was passed. In the seventeenth and eighteenth centuries these Acts were designed to give British ships a monopoly in the carriage of goods to and from Britain and its Colonies. The last of them was repealed in 1849 under the influence of free trade ideas. But the same period found the State taking an increasing interest in the shipping industry, particularly in matters of safety and welfare. Today, the Government Department chiefly concerned is the Ministry of Transport and Civil Aviation. In the sphere of safety, it is responsible for such matters as seeing that the load-line, which shows the depth to which a ship may be safely loaded, is correctly indicated; that every ship has adequate life-saving, fire-fighting and radio equipment; and that the necessary standard of safety is maintained in passenger ship construction; and, in addition, it administers the Coastguard Service. The Ministry is also responsible for the issuing of certificates of competency to masters, navigating and engineer officers, able seamen and lifeboatmen, and for the certification of ships' cooks. It also regulates such matters as crew accommodation on board ship, scales and quality of provisions, and the carriage of medical stores. It is responsible for running the Mercantile Marine offices at United Kingdom ports, the Superintendents of which have statutory duties in connection with the engagement and discharge of crews, and for the General Register and Record office of Shipping and Seamen, where ships' logs and lists and central registers of shipping and seamen are kept. The Ministry is represented on the Merchant Navy Welfare Board (see p. 214) and on the Merchant Navy Training Board (see pp. 212–3). It has important duties under the Oil in Navigable Waters Act, 1955, which enables effect to be given to the International Convention for the Prevention of Pollution of the Sea by Oil of 1954 and re-enacts, with amendments, the main provisions of the Oil in Navigable Waters Act, 1922, which prohibited the discharge of oil into United Kingdom territorial waters. The Act designates areas of the sea outside United Kingdom territorial waters within which United Kingdom registered ships must not discharge oil of a persistent character. It also enables the Minister to require ships to be fitted with equipment for preventing or reducing oil pollution and makes provision for the installation of facilities in United Kingdom ports for the reception of oil residues from ships.

Apart from these administrative functions, the Ministry maintains a close and friendly liaison with the shipping industry on matters of policy and problems relating to imports and exports and also special passenger requirements.

Abroad, certain parts of the Merchant Shipping Acts, in particular those provisions dealing with the engagement and discharge of crews outside the United Kingdom, are administered by H.M. Consuls and by officers of Commonwealth and Colonial Governments.

Lighthouses, Pilotage and Rescue

The Ministry of Transport and Civil Aviation administers the Coastguard Service. This is primarily a life-saving organization which keeps watch at danger points around the coast for vessels in distress and renders assistance either by means of rocket life-saving apparatus or by informing other authorities who may be in a position to give help. There are some 170 stations manned by 560 regular Coastguards together with a further 150 stations manned in bad weather by civilian volunteers forming the Coast Life-Saving Corps. Members of the Corps, which is about 5,000 strong, also operate the rocket life-saving apparatus. There is close liaison between the Coastguard Service and the Royal National Lifeboat Institution. The latter maintains lifeboats around the coast of the United Kingdom; it is supported entirely by voluntary subscriptions, and depends largely for its operation on voluntary workers.

The general lighthouse authority for England and Wales, the Channel Islands and Gibraltar is the *Corporation of Trinity House* which received its first Royal Charter in the sixteenth century. It is also the chief pilotage authority in the United Kingdom, having the management of all matters relating to pilots and pilotage in the London area, the English Channel and certain other coastal districts of the United Kingdom. (Lighthouses in Scotland and Ireland are the responsibility respectively of the Commissioners of Northern Lighthouses and the Commissioners of Irish Lights.) This Corporation is administered by a Board of ten Elder Brethren elected from the Royal Navy and the Merchant Navy.

THE MERCHANT NAVY

Strength

The number of masters, officers and men (excluding Asiatic seamen serving on articles of agreement opened in Asia) making up the strength of the British Merchant Navy in December 1954 was about 148,600. In addition about 45,000 Indian, Pakistani and other Asiatic seamen serve regularly in British ships.

Training

Nautical training in the United Kingdom has two distinct objectives, first to give intending entrants into the Merchant Navy an introductory training before going to sea—this is commonly known as 'pre-sea training'—and secondly, to prepare those, who have already performed the requisite sea-service qualifying them for admission to the examinations, for the various statutory and other certificates granted by the Ministry of Transport and Civil Aviation.

The Merchant Navy Training Board has been set up to consider and make recommendations concerning the training of the various classes of boys and men who enter the different departments in the Merchant Navy. It rests with the shipping industry itself and the appropriate Government Departments, however, to decide whether any particular recommendation should be adopted.

The main function of the Board is in promoting, encouraging and guiding the instruction and studies at sea of apprentices and cadets who are preparing for their examinations for certificates of competency as second mate.

Pre-sea training is not compulsory for those who go to sea as apprentices or cadets but most shipping companies will, in practice, accept only those who have undergone such a course. There are a number of residential and non-residential training establishments (some of which are public schools) which provide courses of varying length. The Ministry of Transport and Civil Aviation allows a proportion of the time spent in approved establishments to count towards the period of sea service which the apprentice or cadet is required to perform before becoming eligible to take the examination for a second mate's certificate. Navigating officers become eligible for examinations for first mate's and master's certificates after further periods of qualifying sea service.

Sea-going engineer officers usually receive their basic training in engineering by serving a suitable apprenticeship of not less than four years in engineering workshops ashore, although part of this period may be spent at approved courses in mechanical engineering. An alternative scheme of training has, however, recently been introduced under which shipping companies themselves select apprentices for a special course of training consisting of a two-year diploma course in a technical college, followed by eighteen months' training at sea and finally twelve months' training in an engineering workshop ashore. Sea-going engineer officers are first employed as junior engineers: they become eligible to take examinations for second and first class certificates of competency after performing periods of qualifying sea service.

Radio officers are required to hold certificates of proficiency in wireless telegraphy issued by the Postmaster-General on the results of an open examination.

All boys who wish to join the Merchant Navy as deck or junior catering ratings must undergo a course of pre-sea training. The majority receive their training at the National Sea Training Schools but courses are also provided by certain private organizations and by a number of local education authorities.

A seaman may not be rated as A.B. (Able Seaman) in United Kingdom registered ships unless he holds a certificate of competency as A.B., granted by the Ministry of Transport and Civil Aviation. To obtain this certificate a seaman must, among other qualifications, have served three years at sea on deck, have attained a certificate of proficiency as lifeboatman and have passed an oral and practical qualifying examination. This qualifying examination for the certificate may, however, be taken on reaching the age of 18 after twelve months' service at sea as a deck rating, and those who pass may be issued with an efficient deck hand certificate, which enables the holder to serve at sea in a similar capacity to an A.B.

Seamen qualify by seniority for promotion to the rating of petty officer. Service as a deck rating qualifies for the purpose of admission to the examination for a second mate's certificate.

Conditions of Employment and Welfare

Wages and conditions of employment are negotiated by the National Maritime Board (see p. 210). Minimum wages and holidays with pay are guaranteed for both officers and ratings. Moreover, the Merchant Navy Established Service Scheme, introduced by the Board in 1947, has removed a great deal of the uncertainty formerly associated with a seafaring life. Officers and men can now take two-year contracts, not only with individual shipping companies but with the industry as a whole, and get special benefits, in addition to the normal unemployment insurance benefit when they are ashore between voyages.

The Merchant Navy Welfare Board, on which are represented officers' and seamen's unions and associations, shipowners, voluntary societies, the Ministries of Transport and Civil Aviation, Labour and National Service, Pensions and National Insurance, and the Colonial Office, has been responsible since 1948 for the control and co-ordination of the welfare services for merchant seamen in the United Kingdom and of British merchant seamen abroad.

In the United Kingdom, the Board runs 15 Port Welfare Committees and has regional seamen's welfare officers in Glasgow, Liverpool and South Shields. It manages directly a number of Merchant Navy houses and clubs, and many others are run by voluntary societies. In oversea ports the voluntary societies run some 300 clubs for British merchant seamen.

PORTS

There are over 300 ports in the United Kingdom. The ten largest are shown in Table 28, which lists them in order of tonnage of shipping arriving and departing and does not relate to the volume of cargo handled. Most ports, other than those owned by the British Transport Commission, are represented on the Dock and Harbour Authorities' Association, formed in 1917 to represent the common interests of port authorities in their relations with Government, shipowners and traders.

TABLE 28

PORT ARRIVALS AND DEPARTURES*, 1954

Thousand tons net

Port	Foreign Trade	Coasting Trade	Total
London	46,676	21,072	67,748
Southampton	30,851	8,106	38,957
Liverpool	28,531	8,044	36,575
Tyne Ports	8,238	8,684	16,922
Glasgow	10,464	3,984	14,448
Belfast	2,318	11,138	13,456
Hull	9,749	2,951	12,700
Swansea	7,871	3,165	11,036
Bristol	6,442	4,016	10,458
Middlesbrough	5,395	2,649	8,044
TOTAL ..	156,535	73,809	230,344
TOTAL ALL PORTS ..	227,637	147,816	375,453

* With cargo and in ballast. Source: *Board of Trade Journal.*

The Port of London, with 69 miles of waterway and over 4,000 acres of dock estate, handles more tonnage annually than any other port in the world except New York. Goods of every imaginable kind, from meat to marble, from plywood to perfume, pass through the docks. Imports are distributed all over the United

The Bristol *Britannia*, the largest gas-turbine-engined civil transport aeroplane at present produced in Britain.

London Airport, showing the passenger building and central control building with control tower.

HM telegraph ship *Monarch*, which is laying the first transatlantic telephone cable between Britain and North America—an important Anglo-U.S.-Canadian project (see p. 250).

Joint consultation in industry. Representatives of employees and management meet on a works council to discuss work and welfare (see p. 268).

The Underwriting Room at Lloyd's (see p. 294), showing the Lutine Bell which is rung before important announcements. The bell was recovered in 1850 from HMS *Lutine*, a frigate wrecked in 1799.

Kingdom, though the port supplies, primarily, Greater London and the Home Counties which have a population of some 11½ million persons.

Liverpool—with *Manchester*, an inland city made into a port by the construction of the Manchester Ship Canal—serves the industrial Midlands, Lancashire and Yorkshire. Grain is prominent among the imports of Liverpool, which, including Birkenhead on the opposite bank of the Mersey, is the second largest milling centre in the world. Tobacco is another major import and is stored in what is probably the world's largest warehouse. Liverpool is also important for transatlantic passenger traffic and short sea-route and coastwise trading. Manchester's chief import is raw cotton.

Southampton, largest of the Channel ports, is the chief port for ocean passenger traffic. It owes its importance to its double tides and easy access from London. A considerable volume of oil is now handled for the refinery at Fawley.

Newcastle upon Tyne and the other Tyne ports serve the industrial North-East and comprise the most important coal-shipping and largest ship-repairing centre in the country.

Hull, on the Humber estuary, serves particularly the industrial centres of Yorkshire and the Midlands. *Middlesbrough* imports iron ore for, and exports iron and steel from, the local iron and steel industries.

Swansea has the largest trade of the group of ports serving South Wales. As well as coal, Swansea exports the steel and tinplate manufactured in its immediate neighbourhood, but its rapidly increasing importance derives largely from the oil which it imports and exports for local refineries.

Bristol and *Avonmouth* serve the industrial Midlands as well as the highly industrialized city of Bristol itself, and have also a large coastal trade.

Glasgow, the principal Scottish port, serves as an entrepot centre for the industrial area dependent on the Lanarkshire coalfields.

Grangemouth, also in Scotland, handles mainly crude oil for the local refinery, and also imports timber and paper-making materials.

Belfast is the principal port of Northern Ireland and handles the main Irish Sea traffic.

Ownership

The ports, in some cases docks only, previously owned by the main-line railway companies are now under national ownership and are administered by the British Transport Commission (see p. 217). The Commission owns about 30 per cent of Britain's dock accommodation with a total of over half a million feet of quays. A few of the Commission's ports are docks developed by former canal undertakings such as the Aire and Calder Navigation which developed Goole. The rest are those formerly owned by the railways. In some cases—e.g., at Southampton and Middlesbrough—the railways owned the main docks in ports where the statutory authority was a harbour board. In other cases—e.g., at Grangemouth, Garston and Grimsby—the port was largely developed by the railway company which was itself the statutory harbour authority. Some railway-owned ports were, and still are, mainly used for the railways' cross-channel services: Folkestone, Harwich, Newhaven, Fishguard, Holyhead, and Heysham are in this category. Among other ports owned by the Commission are Hull, Swansea, Newport, and Cardiff. In 1954, nearly 67½ million tons of cargo were handled at the Commission's docks and harbours, at which, at the end of the year, about 21,000 people were employed.

Other ports are controlled by a public trust on which are represented users of the port (such as shippers, importers and shipping companies) and other bodies such as Government Departments and local authorities. Examples are London (controlled by the Port of London Authority), Liverpool (Mersey Docks and Harbour Board), Belfast (Belfast Harbour Commissioners) and Glasgow (Clyde Navigation Trust). *The Port of London Authority* has 28 members. Ten of the members are nominated as follows: by the Admiralty (1), the Ministry of Transport and Civil Aviation (2), the London County Council (4), the Corporation of the City of London (2), and the Corporation of Trinity House (1). Eighteen of the members represent various port users: shipowners (8), merchants (8), owners of river craft (1), and public wharfingers (1). The Authority's duties include the maintenance of adequate river channels, the regulation of traffic, the provision and upkeep of moorings and the licensing of wharves and structures in the area under its control.

A few ports—Bristol is the most important example—are owned by the town or city council and controlled entirely by a committee of the council.

Finally, there are about 100 ports which are privately owned. Manchester is the only major port so owned—by the Manchester Ship Canal Company—and here the Manchester City Council exercises considerable control by appointing 11 of the Company's 21 directors.

The powers and responsibilities of the port authorities are, in the main, set down in private Acts of Parliament which relate specifically to the ports concerned.

Labour

There are about 150,000 people employed in the operation of British ports. Just under half of these are administrative, clerical and technical staff, and pilots, lightermen, customs officials and so on. Over half are the dock workers (formerly and still popularly called 'dockers') who do the physical work of handling cargo.

Shipping arrivals and departures do not all conform to a regular schedule, with the result that there is sometimes too much work for the dock workers available, sometimes too little. Dock labour was therefore largely casual labour until 1941, when war-time schemes were introduced to control the port registers of employers and workers. The war-time schemes were superseded in 1947 by a permanent scheme administered by the *National Dock Labour Board*. Workers on these registers now receive a guaranteed minimum wage even when there is not enough work for all of them. The Board consists of a chairman, vice-chairman, and eight members appointed by the Minister of Labour and National Service, four to represent employers and four to represent dock workers.

INLAND TRANSPORT

In 1954 the number of passenger journeys made by public transport (road and rail) in the United Kingdom was about 17,000 million, just under one per day for every person in the country. In addition, about 3 million motor cars and over one million motor cycles were licensed for use on the roads. The annual mileage of most of these vehicles is believed to be between five and ten thousand. Journeys by public transport are mainly short and a great many of them are to and from places of work. The resultant concentration of travel in the morning and evening 'rush hours' constitutes a formidable problem in London and other centres of industry and commerce.

The extent of freight traffic in the United Kingdom can be roughly gauged from the fact that in 1954 British Railways carried over 22,000 million net ton miles[1] of goods, while there were nearly a million goods vehicles on the roads, the aggregate net ton mileage of which is believed to be little less than that of the railways.

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[1] Net ton miles are calculated by multiplying the tonnage carried by the actual distance it was carried.

The dense traffic of the United Kingdom is carried mainly by road and rail, though some freight is carried by canal. There are in the United Kingdom some 52,000 miles of railway track and nearly 200,000 miles of road, of which only about one quarter may be classed as main roads. The railway network was developed mainly in the nineteenth century from 1840 onwards (and there are now more railways per square mile in Britain than in any other country, except Belgium), while the building of new roads and the widening and strengthening of old ones to accommodate the increasing motor vehicle traffic has been, and still is, a feature of the twentieth century.

The State has for a long time exercised considerable control over public transport operators, and the scope and degree of regulation in the interest both of public safety and of efficiency has increased throughout the twentieth century.

THE BRITISH TRANSPORT COMMISSION

The Transport Act, 1947

On 1st January 1948, in accordance with the provisions of the Transport Act, 1947, most of Great Britain's[1] inland transport system, other than road transport, passed into public ownership. On that date, the railways, all railway-owned steamships, docks, hotels and road transport interests, most of the country's canals (including all those owned by the railways) and the whole of London's passenger transport system came under the control of the British Transport Commission, a public corporation which was given the duty of providing an efficient, adequate, economical and properly integrated system of public inland transport and port facilities for passengers and goods. In addition, the Commission was to arrange for the gradual acquisition of privately owned long-distance road haulage firms.

Road passenger transport outside London was not taken over, but the Commission was given power to prepare area schemes for co-ordinating passenger services by road and rail, including power to acquire road passenger undertakings for this purpose. A considerable amount of road haulage, several waterways and many docks were left outside the Commission's scope.

By the 1947 Act, the Commission was made responsible to the Minister of Transport (now the Minister of Transport and Civil Aviation) who, in turn, is responsible to Parliament. The Minister was to appoint the members of the Commission, and was empowered to give general directions to the Commission in the national interest and to approve the general outline of programmes of major development and of training, education and research. With the consent of the Minister, the Commission was given borrowing powers up to £275 million, increased to £600 million in 1955. An annual report and statement of accounts was to be submitted to the Minister who would lay it before Parliament. Jurisdiction over transport charges of all kinds was given to the Transport Tribunal (formerly the Railway Rates Tribunal established in 1921): all charges schemes proposed by the Commission were to be approved by the Tribunal. Transport users were to be given an opportunity of putting forward criticism and constructive suggestions for improving transport services through a Central Transport Consultative Committee for Great Britain and Area Transport Users' Consultative Committees, including one each for Scotland and Wales. The members of these Committees were to be appointed by the Minister, after consultation with the interests concerned, to represent commerce, industry, agriculture, labour and local authorities. The Minister would also appoint members from persons nominated by the Commission. Eleven area committees have in fact been set up. They report to the Central Committee and the Commission, and the Central Committee reports to the Commission and the Minister who may give directions to the Commission upon any recommendation of the Central Committee. (Since 1953, the Scottish and Welsh committees also report direct to the Minister, who may give directions upon their recommendations.)

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[1] In Northern Ireland, public ownership was brought into effect by the Transport Act (Northern Ireland), 1948 (see p. 233).

As agents of the Commission, six executives were appointed to run different parts of the system it took over: (1) the Railway Executive, to be responsible for the railways, which were organized in six regions; (2) the Road Transport Executive, which in June 1949 was renamed the Road Haulage Executive, to operate long-distance road transport which was organized in eight geographical divisions; (3) the Road Passenger Executive, which was set up in June 1949 as a planning and advisory body to promote area schemes for the co-ordination of road passenger transport services; (4) the Hotels Executive to run the railway hotels and catering services; (5) the London Transport Executive to operate road and rail passenger transport in the London area; and (6) the Docks and Inland Waterways Executive to be responsible for canals and the former railway-owned docks.

The Transport Act, 1953

Changes in the organization briefly outlined above have been put into effect under the Transport Act, 1953.

The broad purpose of this Act was described by the Minister of Transport, speaking for the Conservative Government during the second reading of the Bill. He said: 'We believe that competition gives a better service than monopoly. We believe that the best way to have a good service is through decentralization; and that independent private enterprise, or in the case of the railways, regional enterprise, is the best way to achieve this decentralization.'

The main provisions of this Act were accordingly directed to returning road haulage to private enterprise by arranging for the disposal of most of the Commission's road haulage undertaking, and to increasing the competitive efficiency of the railways. To this end the Commission was ordered to submit a scheme of railway organization and decentralization including the abolition of the Railway Executive; it was also given more latitude in fixing railway charges.

Other important provisions of the Act were as follows:

1. The Commission's power to make area schemes for the co-ordination of road and rail passenger services and trade harbours schemes was revoked.
2. The Commission's maximum membership was increased. It now consists of a chairman and up to 14 members, all of whom may be part-time.

All the Commission's Executives, except the Road Passenger Executive which had been abolished in October 1952 and the London Transport Executive which has been retained, were abolished as from 1st October 1953.

Present Organization

After various interim arrangements, the Commission adopted the following organization as from 1st January 1955.

The Commission remains a policy-making and not a managing body. It works through six policy-making Committees each dealing with one particular subject in relation to all the Commission's activities, and through Sub-Commissions which are not policy-making but each of which takes a special interest on behalf of the Commission in the activities of one of the 'Divisions' (see below) and serves as a clear and easy channel of approach to the Commission. Committees and Sub-Commissions are composed of members of the Commission. There is also a General Staff which channels all communications from Divisions, railway areas and London Transport, after such co-ordination as may be required, to the appropriate Committee or Sub-Commission.

The separate activities of the undertaking are called Divisions, except in the case of London Transport which, as already noted, has retained its Executive. There are seven Divisions: British Railways, British Road Services, Tilling (bus) Group, Scottish Omnibus Group, British Transport Docks, British Transport Waterways, and British Transport Hotels and Catering Services. The Divisions concerned with road services, docks and waterways are managed by Boards of Management, the two bus groups retain their group status for the purpose of management, and the hotels and catering services are run by a General Manager without a Board. Management of British Railways is in the hands of six Area Boards (the areas corresponding with the former regions) which leave day-to-day management to the General Managers of the areas. The Boards are appointed by the Commission and consist of not more than seven persons, one or more of whom must be a member of the Commission and the rest drawn in part from outside the industry but not representative of any particular interest. Certain railway matters are reserved to the Commission, including the design, manufacture and standards of maintenance of locomotives, rolling stock, permanent way and signalling; major labour relations; the general level of charges and the broader aspects of financial control; and general commercial policy. These matters are dealt with by the British Railways Division, which consists of a Central Staff for British Railways, the General Managers' Committee and the British Railways Committees. The Railways Sub-Commission is available to give quick decisions on behalf of the Commission to the Division's staff and to resolve at once any problems which arise between it and the regions.

Financial Results

During 1954, the Commission earned a working surplus of £45·5 million (see Table 29 overleaf), but this was insufficient to meet interest and other charges and the net result was a deficit of £11·9 million (compared with a surplus of £4·2 million in 1953) which brought the cumulative deficit during the Commission's seven years of working to £39 million. The working surplus in 1954 was £13·9 million less than in 1953 due to a fall in the net traffic receipts of British Railways. The Commission explains the deterioration by the fact that fares and freight charges were never able to catch up with rising costs in the shape of higher wage and price levels.

RAILWAYS

In 1954, 991,193,000 passenger journeys were made on British Railways, which also carried 283,498,000 tons of freight.

Britain was the pioneer of railway development, which provided the improved transport essential to industrial and commercial expansion.

Railroads were in use around pits and iron works before the end of the sixteenth century. Trucks were mainly drawn by horses. The first railroad to carry goods for the public was the Surrey Iron Railway built between Wandsworth and Croydon in 1801 to 1803. In 1812, William Hedley, a colliery engineer, following up the work of William Symington, William Murdock, Richard Trevithick and others, showed how locomotives could be used on railroads. About the same time, George

TABLE 29

CONTRIBUTION TO WORKING SURPLUS OF BRITISH TRANSPORT COMMISSION IN 1954

£ million

	Net Receipts, Year 1954	Better (+) or worse (—) than 1953
Principal carrying activities:		
British Railways (including collection and delivery services)	14·8	—18·2
British Road Services	8·7	— 0·2
Provincial and Scottish buses	5·0	+ 0·2
London Transport: Road	1·3	+ 1·4
Rail	1·0	+ 0·3
Ships	1·1	+ 0·2
Inland Waterways: Carrying* (deficit)	—0·1	— 0·1
TOTAL CARRYING ACTIVITIES	31·8	—16·4
Other principal activities:		
Docks, harbours and wharves	2·6	+ 0·1
Inland Waterways: Owning* (deficit)	—0·1	—
Hotels and catering . . (deficit)	—0·1	+ 0·4
of which:		
Hotels	*0·1*	
Refreshment rooms	*0·4*	
Restaurant cars . . . . (*deficit*)	*—0·6*	
Commercial advertising	2·0	+ 0·1
Letting of sites on transport properties . .	1·4	+ 0·1
TOTAL OTHER PRINCIPAL ACTIVITIES	5·8	+ 0·7
Miscellaneous activities	5·3	+ 1·0
Interest and miscellaneous receipts	2·6	+ 0·8
WORKING SURPLUS	45·5	—13·9

Source: *Seventh Annual Report of the British Transport Commission*, 1954.

* *Note:* The figures shown against 'Inland Waterways: Carrying' are the financial results from the operation of barges and other vessels; those shown against 'Inland Waterways: Owning' are the financial results of the ownership and administration of inland waterways.

Stephenson began to improve locomotive design. In 1825 the Stockton to Darlington railway was opened and became the first public railroad on which locomotives were used. The first public line built expressly to use only locomotive haulage was the Liverpool and Manchester railway of 1830. Stephenson's 'Rocket' was the chosen locomotive, as a result of a competition in 1829. From that time, the potentialities of the locomotive railway began to be fully developed.

At first, railway projects were mainly local, promoted by groups of people concerned with the needs of particular areas. Parliamentary sanction had to be sought for each project. The general opinion was that the company would provide the track but would not necessarily act as carriers. Private carriers often ran their vehicles over the companies' lines. But the realization that for reasons of safety and efficiency the company must have all traffic under its own control was endorsed by a Parliamentary Committee in 1839. Railway building was particularly rapid between 1840 and 1875, with a short lull following the collapse of a speculative railway boom in 1846. This period also saw the beginning of a process of amalgamation in order to achieve the economies of concentration and large-scale operation. The State began to intervene. Thus in 1846 an Act of Parliament prescribed a standard gauge of 4 feet 8½ inches for all new lines except extensions of the Great Western Railway which had a gauge of 7 feet. Not until 1892 was the Great Western gauge completely converted to the standard gauge. In 1850 statutory recognition was given to the Railway Clearing House which began in 1842 and had the function of facilitating through traffic by providing for the adjustment of balances between companies. The Railway and Canal Traffic Act of 1854 laid upon the companies the obligation of providing reasonable facilities, especially for through traffic, and of avoiding undue preference between users. In 1873 jurisdiction under this Act was given to a body of three Railway Commissioners, renamed the Railway and Canal Commission in 1888. The Railway and Canal Traffic Act of 1888 drew up a standard freight classification and schedules of maximum freight charges which came into operation in 1893. A company wishing to increase these rates had to justify itself to the Railway and Canal Commission.

During the 1914–18 war the railways were controlled by the Government, acting through a Railway Executive Committee consisting of the general managers of some of the larger companies. This arrangement made clear the advantages of concentration and it was decided that the handing back of the railways to the companies should be accompanied by a comprehensive reorganization. By the Railways Act of 1921, 123 companies were amalgamated into four large groups—the London, Midland and Scottish; London and North Eastern; Great Western; and Southern. A new tribunal, the Railway Rates Tribunal, was established to take over the Railway and Canal Commission's jurisdiction over charges and questions of undue preference. It was to carry out an annual review of standard rates and fares which were to be adjusted with reference to the principle of maintaining to the companies a standard net revenue equivalent to that of 1913.

In the inter-war years, the railways suffered both from the general industrial depression and from the growing competition of road transport, and the standard net revenue was never earned. Efforts were made to improve services and efficiency. In 1928 powers were obtained from Parliament to own and operate road services. But the railways were at a disadvantage in competing with road hauliers; the latter were not, as were the railways, bound to accept all traffic; their rates were flexible and did not need to avoid undue preference, and they were not heavily capitalized undertakings. In 1938, the railways put forward 'Square Deal' proposals calling for relief from statutory regulation of charges and for freedom to decide for themselves the rates for merchandise carried. The campaign was interrupted by the outbreak of war in 1939 when the railways again passed under the control of the Government, acting, as in the 1914–18 war, through a Railway Executive Committee.

After the war came the Transport Act of 1947 bringing the railways under public ownership, operated on behalf of the British Transport Commission by a Railway Executive as a single enterprise known as British Railways with six regional subdivisions—London-Midland, Western, Eastern, Southern, North Eastern, and

Scottish—corresponding broadly to the former companies. The reorganization following the Transport Act of 1953 is outlined on pages 218–19.

Staff and Assets of British Railways

The following figures summarize the numbers of staff employed and vehicles, ships and track owned by British Railways at the end of December 1954.

Staff, total number	577,183
of which: Administrative	73,761
Operative	295,940
Maintenance	193,969
Permanent Way (standard gauge)	
Railroad mileage (incl. electrified)	19,150
Track mileage (incl. electrified)	51,481
Locomotives	
Steam	18,420
Electric	71
Diesel	22
Diesel-electric	294
Gas-turbine electric	2
Petrol	2
Narrow-gauge (*a*)	5
Passenger carriages (*b*)	
Steam	37,215
Diesel multiple-unit stock	70
Electric	4,632
Freight vehicles	1,124,710
Ships (*c*)	136
Net tonnage of ships	80,322
Road vehicles	
Motors and tractors	5,201
Articulated motive units	10,467
Trailers for above	26,823
Horse-drawn vehicles	3,760

(*a*) There are about 27 miles of narrow-gauge track open for traffic.

(*b*) Including rail motor vehicles.

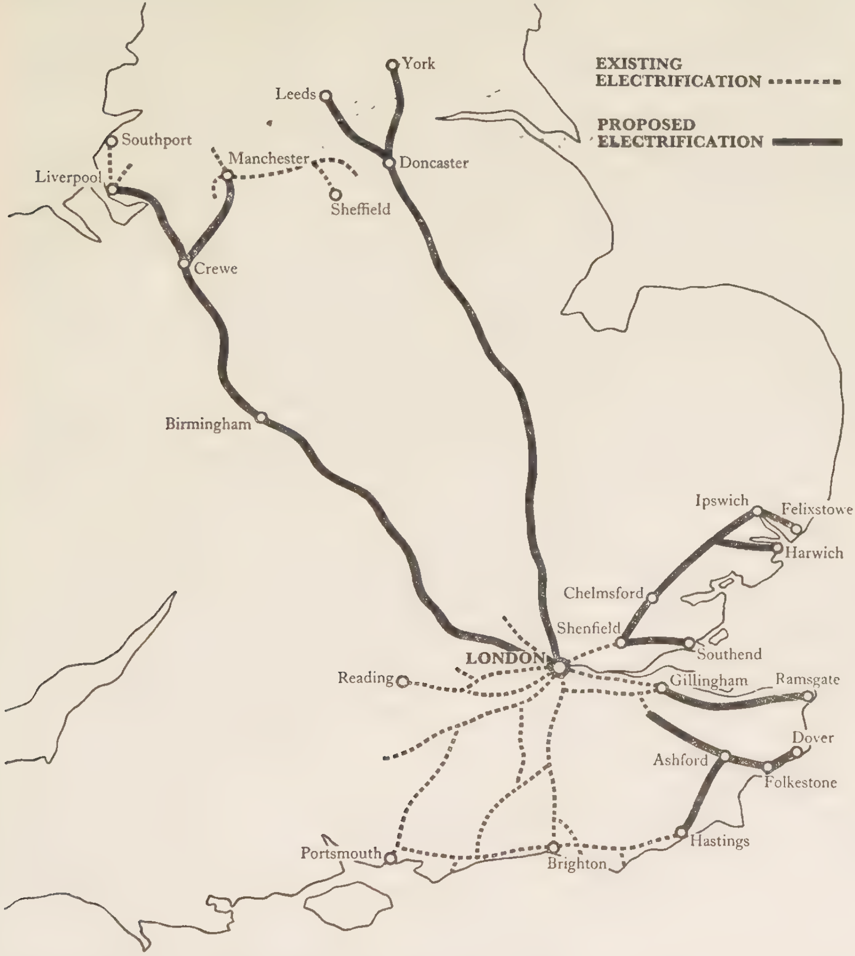
(*c*) Including 11 jointly owned and 9 operated but not owned. British Railways operate services on twelve routes to the Continent including two train-ferry services, Harwich–Zeebrugge and Dover–Dunkirk. Services are also operated across the Irish Sea, and on coastal waters and lakes.

At the end of 1954 there were 384 railway refreshment rooms, of which 64 were operated by tenants and 320 by British Transport Hotels and Catering Services, which also operated 36 hotels. Two hotels were operated by tenants. Hotels and catering services staff numbered 15,371.

Development of British Railways

During the first seven years of the British Transport Commission's life to the end of 1954, capital expenditure on British Railways amounted to £286 million. Much of this was accounted for by maintenance, including arrears of maintenance inherited from the war period, and renewal of rolling stock. But several new lines of development were undertaken, including the electrification of the line between

Main Lines to be Electrified


EXISTING ELECTRIFICATION
PROPOSED ELECTRIFICATION
York
Leeds
Southport
Manchester
Doncaster
Liverpool
Sheffield
Crewe
Birmingham
Ipswich
Felixstowe
Harwich
Chelmsford
Shenfield
Southend
LONDON
Reading
Gillingham
Ramsgate
Dover
Ashford
Folkestone
Hastings
Portsmouth
Brighton

Wath, Sheffield and Manchester—the first electrification of a main line in Britain for freight as well as passenger traffic—and the introduction of diesel rail cars in West Yorkshire. Existing development projects have now been incorporated in a £1,200 million modernization and re-equipment programme announced by the Commission in January 1955, which is based on the premise that work on its main components will be capable of being started within five years and completed within fifteen. The Commission expects that the result will ultimately be to improve the financial position of the railways by at least £85 million a year. The programme is to be financed partly from internal sources and partly by the issue of Transport Stock for which a Treasury guarantee will be available.

Major features of the programme are the remodelling of freight services and the progressive displacement of steam by diesel and electric traction. As regards freight services, operations are to be completely reorientated so as to speed up movement, reduce costs, provide direct transit for main streams of traffic and to attract to the railway a due proportion of the full-load merchandise traffic which would otherwise pass by road. Larger wagons are to be introduced, continuous brakes are to be fitted to all wagons, and marshalling yards, goods stations and handling facilities are to be improved. As regards traction, electricity is regarded as the ideal alternative to steam, especially where traffic is dense, but the substantial engineering work involved in converting a length of line to electric traction imposes a limit on the amount of main-line electrification that can be completed during the 15-year period. Thus, during that period, it is proposed to electrify two major trunk routes—from London (King's Cross) to Leeds, and from London (Euston) to Birmingham, Liverpool and Manchester; to extend the existing electrification from London (Liverpool Street) to Ipswich, including some branch lines; and to complete the electrification of the main routes of the Southern Region east of a line from Portsmouth to Reading. On the rest of the main-line services it is proposed to introduce diesel traction as quickly as possible. The programme also provides for track improvements, signalling improvements including an extension of automatic train control, and the introduction of multiple-unit diesel trains in many areas.

In May 1955 the Commission announced the major development projects it expected to begin during 1955 and 1956 as the first instalment of the modernization plan, and the first orders for diesel locomotives were placed in November 1955.

ROADS

The road system is complex and to a large extent haphazard. For centuries after the Romans left Britain, road building and maintenance were left mainly to the parish, which was naturally concerned only with local needs. The most effective intervention by the central Government was in the seventeenth century with the institution of turnpike trusts. The maintenance of a length of road was placed in the hands of a trust, made up of private individuals, empowered to levy tolls at the gates it erected at the limits of its jurisdiction. Early in the nineteenth century there were 1,000 of these trusts administering some 22,000 miles of road. The same period was also notable for improvements in construction associated with the names of Telford, who emphasized the importance of solid foundations, and McAdam, who demonstrated the value of an arched surface of broken stone or flint. Turnpike roads made it possible for coaches to reach an average speed of 12 miles an hour. But transport by river and canal retained the advantage in handling bulky traffic, and as the nineteenth century progressed, the railways almost drove long-distance road transport out of existence. Roads held their own in towns where horse-drawn omnibus services were developed and then horse tramways, the first of which were introduced into London and Birkenhead in the early 1860s. Towards the end of the nineteenth century the tramways were electrified and largely taken over by local authorities. London's trams have now disappeared, as have those of many other cities and towns.

While tramways were still being developed, there came the internal combustion engine and the rapid increase in the number of motor cars. In 1909, the Government set up a Road Board to assist in providing new and better roads to meet the needs of the new traffic. In 1919 the Board's responsibilities were taken over by the newly created Ministry of Transport.

In 1954, Great Britain had 187,040 miles of public highway, over two miles for every square mile of territory. There were 8,270 miles of trunk roads, 19,585 miles of Class I roads, 17,690 miles of Class II roads, 48,721 miles of Class III roads, and 92,774 miles of unclassified roads. Roads are classified according to their traffic value, those of purely local traffic importance remaining unclassified. Trunk roads are the main arteries of national traffic and the whole cost of their upkeep is met from the Road Fund, administered by the Minister of Transport, who is the highway authority for these roads. On maps and signposts the trunk and Class I roads can mostly be identified by the letter 'A' in front of a route number, and Class II roads by the letter 'B'. The Minister makes grants from the Road Fund towards approved expenditure on Class I, II and III roads at the rates of 75, 60 and 50 per cent respectively. The highway authorities for these and for unclassified roads are the local authorities—in most cases the councils of counties and county boroughs. The Road Fund, established in 1921, was originally financed by the proceeds from motor vehicle and driving licence duties, but since the Finance Act, 1936, the proceeds of motor taxation have been paid into the Exchequer and the Road Fund has been financed, like any other Government-assisted service, by means of annual grants voted by Parliament. In effect, therefore, Government road expenditure has been met from money provided by Parliament and this will continue to be the position after 1st April 1956, when the Road Fund will be wound up.

Development

Economic difficulties since the war have restricted expenditure on major improvements and new construction, and the bulk of expenditure on roads—£90,335,000 in the year ended 31st March 1954—has been devoted to maintenance and repair, although since 1953 there has been increasing emphasis on new works, culminating, in February 1955, in the announcement by the Government of the first instalment of an expanded programme of road construction and improvement. In the four financial years 1955–59, road development works in Great Britain would, according to the announcement, be authorized, involving an ultimate expenditure of £147 million by the Government and of £20–£30 million complementary expenditure by local highway authorities. The programme would include certain major projects of great national importance. The cost of these would be formidable and the Government had it in mind to charge tolls in suitable cases, with provision for sharing the proceeds with local authorities where they contributed to the expenditure. The first of these major projects to be undertaken would be the first section of a London to Yorkshire motor road—i.e. a road confined to motor traffic with severely restricted access and with fly-over crossings and junctions. The section would extend from London, by-passing St. Albans in Hertfordshire, to a point near Rugby in Warwickshire with a connection to the trunk road leading to Birmingham. Thereafter, the remainder of that motor road would be put in hand and also a motor road through Lancashire from Preston to Birmingham (see map, p. 226). In Scotland, where, as from April 1956, roads will be the responsibility of the Secretary of State, it is intended that a start should be made in the four-year period with a crossing of the Firth of Forth by means of a bridge, or a tube on the river bed.

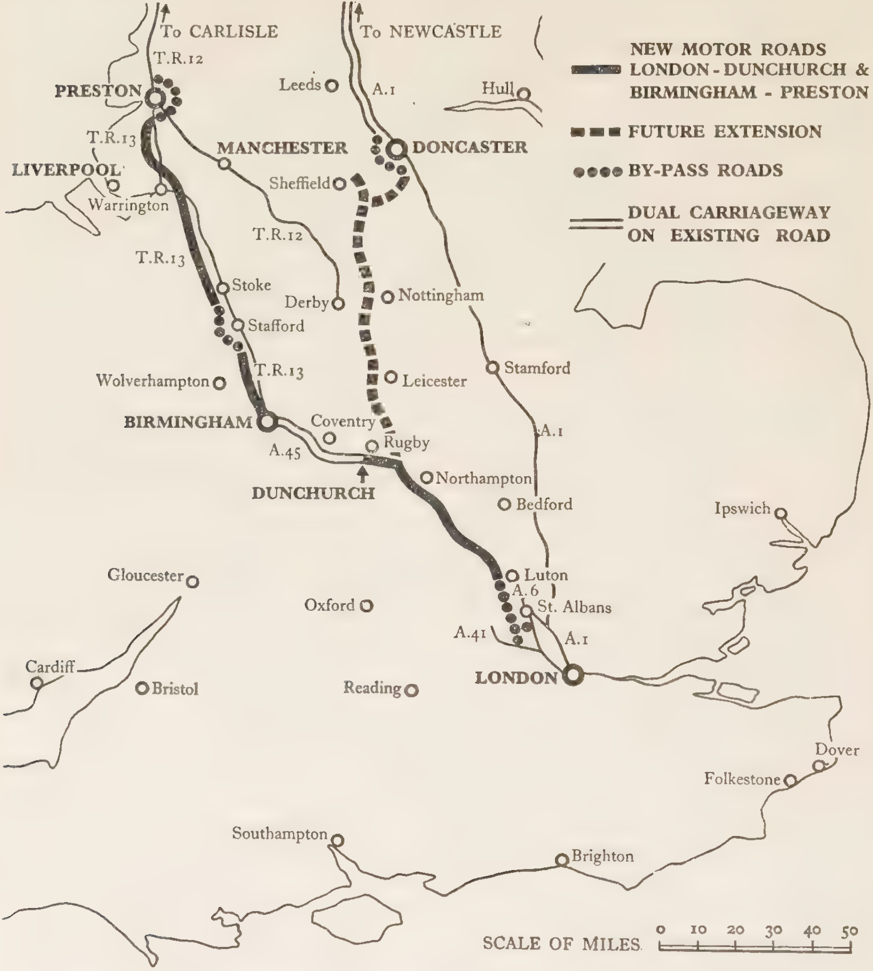
Roads in Northern Ireland

There are 13,397 miles of public roads in Northern Ireland, comprising 347 miles of trunk roads, 960 miles of Class I roads, 1,749 miles of Class II roads, 2,757 miles of Class III roads, and 7,584 miles of unclassified roads.

In the year ended 31st March 1954 a little under £4 million was spent on road works.

The Ministry of Commerce is the road authority for the trunk roads and the cost of maintenance and improvement is met out of moneys voted by Parliament. The road authorities for the other classes of public roads are the local authorities within whose areas the roads lie, and the cost of reconstruction, maintenance and

Proposed New Motor Roads


To CARLISLE
To NEWCASTLE
NEW MOTOR ROADS
LONDON-DUNCHURCH & BIRMINGHAM - PRESTON
FUTURE EXTENSION
BY-PASS ROADS
DUAL CARRIAGEWAY ON EXISTING ROAD
T.R.12
PRESTON
Leeds
A.1
Hull
T.R.13
MANCHESTER
DONCASTER
LIVERPOOL
Warrington
Sheffield
T.R.12
T.R.13
Stoke
Derby
Nottingham
Stafford
T.R.13
Wolverhampton
Leicester
Stamford
BIRMINGHAM
Coventry
Rugby
A.1
A.45
DUNCHURCH
Northampton
Bedford
Ipswich
Gloucester
Luton
A.6
Oxford
St. Albans
A.41
A.1
Cardiff
Bristol
Reading
LONDON
Dover
Folkestone
Southampton
Brighton
SCALE OF MILES
0 10 20 30 40 50

improvement of the roads is a charge on the income of those bodies. Grants from the Northern Ireland Road Fund are, however, made to the local authorities in aid of their expenditure on road works. The rates of grant range from 72 per cent to 40 per cent for reconstruction and from 60 per cent to 20 per cent for maintenance and improvement, according to the classification of the road.

ROAD TRANSPORT

Between 1830 and the 1914–18 war, the railways were unchallenged as the chief means of transport in the country; the war, however, greatly stimulated the development and use of motor transport. In the period immediately following the 1914–18 war, the growth of public road transport began to make itself felt as a serious competitor of the railways and there was violent competition within the road transport industry itself. In 1928 a Royal Commission on Transport was appointed to consider the issues involved, and following its recommendations legislation was introduced. The Road Traffic Act, 1930, provided either directly or by regulations for (i) a reclassification of motor vehicles and the re-enactment of the licensing system for drivers; (ii) the prescription of speed limits and a variety of 'safety' measures, including a restriction on the hours during which drivers of public service and goods vehicles could remain continuously on duty; (iii) safety requirements governing the construction and use of motor vehicles; (iv) compulsory insurance against third party risks; and (v) the introduction of a comprehensive licensing and inspection system for public service (passenger) vehicles, under which bodies of Traffic Commissioners (now called Licensing Authorities for Public Service Vehicles) were created to have the duty, within defined Traffic Areas, of licensing vehicles, drivers and conductors, and services operated. Each licensing authority consists of a full-time chairman appointed by the Minister and two part-time members chosen by the Minister from a panel of persons nominated by local authorities. Applications for licences for road services are considered at public sittings at which competing operators or local authorities can exercise a right of objection; the licensing authority has power to suspend or revoke a licence in certain circumstances. Although the Minister can issue general directions to licensing authorities he has no power to intervene in their decisions, unless an applicant or an objector, being aggrieved at a decision, appeals to him. The effect of this system has been to ensure for road passenger transport the regularity and reliability which has been a feature of railway services.

In 1933 the Road and Rail Traffic Act was passed; it was based on the recommendations of the Royal Commission and on those contained in a report of a conference of experts, known as the Salter Report. A system of licensing for road haulage vehicles was introduced and three types of carriers' licences were instituted: the 'A' licence for general public haulage; the 'B' licence for public haulage limited to certain goods or certain areas and covering also the carriage of the licensee's own goods; and the 'C' licence for the carriage by traders of their own goods alone. The licensing authorities for goods vehicles are the chairmen of the licensing authorities for public service vehicles in each traffic area, and applications for 'A' and 'B' licences are considered at public inquiries as in the case of road service licences under the Road Traffic Act, 1930; 'C' licences are granted on application without public inquiry. A licence can be suspended or revoked by a licensing authority for breaches of licence conditions committed frequently, wilfully or to the public danger. There is a right of appeal against a decision of a licensing authority to an independent tribunal, the Transport Tribunal, and not as under the Act of 1930 to the Minister. The effect of this system has been to relate the operations of vehicles under 'A' and 'B' licences to approved needs and to eliminate wasteful competition between the different forms of transport.

During the 1939–45 war commercial vehicles were subject to a considerable degree of direct control through a system of permits and fuel rationing. The Ministry of War Transport's Road Haulage Organization, set up in 1943, came to control many of the bigger undertakings and hired a large number of vehicles engaged in long and short distance work. Vehicles were handed back to their owners when the Organization came to an end in 1946 and the carriers' licence system, which had been suspended, was resumed. At the end of 1946 there were 90,683 vehicles on 'A' licences, 58,386 on 'B' licences and 383,738 on 'C' licences, a total of 532,807 vehicles.

The Transport Act, 1947, as already noted, established the British Transport Commission, which took over 'A' and 'B' hauliers predominantly engaged on long-distance haulage. Vehicles operating under 'C' licences and those used for carrying certain specialized traffics were not affected by the Act; 'A' and 'B' licensed vehicles which were not acquired by the Commission could only be used on journeys of over 25 miles from base under permits granted by the Commission. By the end of 1951, when the acquisition of vehicles by the Commission was completed, 3,266 undertakings with 41,265 vehicles and 3,018 trailers had been acquired. Carriers' licences were not required for vehicles operated by the various Executives of the Commission.

The Transport Act, 1953, required the British Transport Commission to dispose of the bulk of its road haulage undertaking, and all vehicles operated by the Commission were made subject to the carriers' licence system.

The Commission was to be allowed to retain a proportion of its road haulage fleet corresponding broadly to the interest the railways had in road haulage when they were taken over on 1st January 1948. The disposal operation was to be carried out by the Commission as quickly as possible under the supervision of a Road Haulage Disposal Board. Purchasers of the Commission's road haulage property were entitled to operate the vehicles bought immediately without restriction as to distance from their operating centres, while the 25 miles radius limit was removed from all operators on 1st January 1955.

The Act also provided for a levy on ordinary goods vehicles of more than 1½ tons unladen weight, and on general haulage tractors. The levy was required to defray the capital loss suffered by the Commission on the disposal of its road haulage undertaking and for 'disturbance' during the process. The rate of the levy was fixed for 1954 and 1955, at a level which would produce approximately £4 million a year, and could then be varied at three-yearly intervals according to requirements. When sufficient money had been collected to meet the necessary payments, the levy would cease.

Pending disposal, road haulage assets are being operated by British Road Services (see p. 219).

The Road Haulage Disposal Board was set up in May 1953. There are six members appointed by the Minister of Transport and Civil Aviation. Invitations to tender for the first transport units offered for sale were published in November 1953. The vehicles were offered in units of varying sizes, in some cases with premises, the Board's policy in this matter being flexible and influenced by its experience of demand. In particular early offers were framed so as to contain a high proportion of units that would be within the resources of the small operator who wished to enter or re-enter the industry. By 21st July 1955, 16,748 vehicles had been sold, and arrangements had been made to put on sale 4,000 parcels vehicles and 2,000 contract line vehicles. When allowance was made for a small number of unsaleable vehicles, there remained for disposal under the Act of 1953 some 8,000 vehicles. On that date the Government announced its decision not to proceed with the disposal of those vehicles required to maintain the Commission's trunk services, which were rendering a good service to industry. A Bill would be laid before Parliament to enable the Commission to retain for this purpose a number of vehicles—bringing the total to over 7,000—beyond those authorized under the 1953 Act. The balance would be offered for sale as soon as possible.

At the end of 1954, 1,069,561 goods vehicles were authorized under carriers' licences including 96,853 under 'A' (public carriers') or contract 'A' licences; 64,649 under 'B' (limited carriers') licences; 899,773 under 'C' (private carriers') licences, and 8,286 under special 'A' licences issued to purchasers of vehicles formerly operated by the British Transport Commission as part of the nationalized road haulage undertaking.

Road Safety Measures

In 1955 there were some six million motor vehicles licensed to use Great Britain's roads, of which over three million were motor cars and over a million were motor cycles. Traffic density is, therefore, high, presenting problems of control and safety. In 1954, 5,010 people were killed on the roads and 233,271 injured. Vigorous road safety campaigns are conducted by local authorities with the aid of Government grants. The Royal Society for the Prevention of Accidents, the police and education authorities are all actively at work to the same end. A system of pedestrian crossings has been introduced, a feature of which is the more conspicuous marking which takes the form of white stripes—hence the name 'zebra crossings'—illuminated by flashing beacons. The standard of conduct for all road users—pedestrians and drivers—is set out in *The Highway Code*, a new edition of which was published in March 1955. A failure to observe any provision of this code does not of itself render a person liable to criminal proceedings of any kind but it may be taken into account in any such proceedings. Drivers of motor vehicles—including motor cycles and powered pedal cycles—all have to pass a driving test before being granted a substantive licence to drive; until they pass the test they may obtain a 'provisional' licence which necessitates their displaying 'L' (Learner) plates and, in all cases of vehicles constructed to carry passengers, being accompanied by a qualified driver.

INLAND WATERWAYS

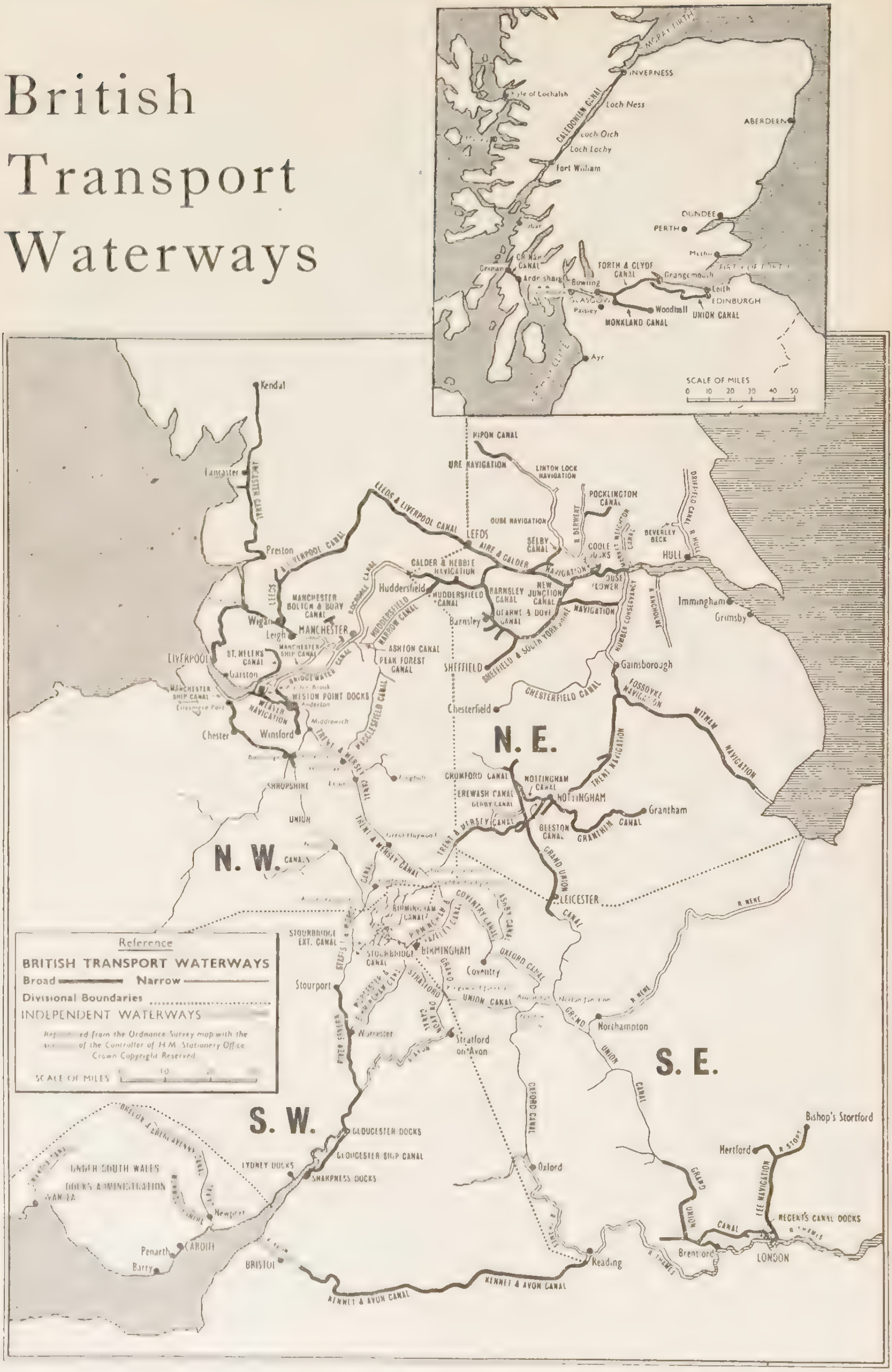
In 1761 James Brindley completed the Bridgewater Canal to take coal from the collieries owned by the Duke of Bridgewater at Worsley to Manchester. This marked the beginning of canal building in modern Britain which played an important part in promoting the industrial and commercial expansion of the late eighteenth and early nineteenth centuries. Most of the present network—except, notably, the Manchester Ship Canal which was built between 1888 and 1894—was completed by 1840 when the development of railways brought to an end the golden age of canals. As railway competition developed, many canal companies were reduced to a precarious position, and, often at the instance of the companies, about one-third of the canal mileage passed to the control of the railways. During the first world war, Government control of railways included railway-owned canals. In 1917 the main canals not owned by the railway companies were placed under the control of a Canal Control Committee of the Board of Trade, being returned to their owners at the end of the war. Government control was again the rule in the second world war, and in 1948 the canals passed direct from Government control to the British Transport Commission.

The System

There are some 2,200 miles of navigable inland waterways in Great Britain. The British Transport Commission is responsible for 2,172 miles, of which 1,750 miles are open to traffic. The canals in England and Wales are grouped into four divisions based on the main navigable river estuaries:

1. The North-Eastern Division is based on the Ouse and Humber rivers and the ports of Hull, Grimsby, Goole and Immingham.
2. The North-Western Division is based on the Mersey estuary and its waterways are connected with Liverpool and Birkenhead, Ellesmere Port, Weston Point Docks, Manchester, and with Hull via Leeds.

British Transport Waterways


MORAY FIRTH
INVERNESS
Kyle of Lochalsh
CALEDONIAN CANAL
Loch Ness
ABERDEEN
Loch Oich
Loch Lochy
Fort William
DUNDEE
PERTH
CRINAN CANAL
Crinan
Ardrishaig
FORTH & CLYDE CANAL
Bowling
Grangemouth
Leith
EDINBURGH
GLASGOW
Paisley
Woodhall
UNION CANAL
MONKLAND CANAL
Ayr
SCALE OF MILES
0 10 20 30 40 50
Kendal
Lancaster
LANCASTER CANAL
Preston
LEEDS & LIVERPOOL CANAL
RIPON CANAL
URE NAVIGATION
LINTON LOCK NAVIGATION
OUSE NAVIGATION
POCKLINGTON CANAL
R. DERWENT
DRIFFIELD CANAL
R. HULL
BEVERLEY BECK
LEEDS
AIRE & CALDER NAVIGATION
SELBY CANAL
GOOLE DOCKS
OUSE (LOWER)
HULL
CALDER & HEBBLE NAVIGATION
Huddersfield
HUDDERSFIELD CANAL
BARNSLEY CANAL
NEW JUNCTION CANAL
DEARNE & DOVE CANAL
Barnsley
SHEFFIELD & SOUTH YORKSHIRE NAVIGATION
HUMBER CONSERVANCY
Immingham
Grimsby
MANCHESTER BOLTON & BURY CANAL
ROCHDALE CANAL
HUDDERSFIELD NARROW CANAL
Wigan
Leigh
MANCHESTER
MANCHESTER SHIP CANAL
ASHTON CANAL
PEAK FOREST CANAL
SHEFFIELD
LIVERPOOL
ST. HELENS CANAL
Garston
BRIDGEWATER CANAL
WESTON POINT DOCKS
Anderton
MANCHESTER SHIP CANAL
Ellesmere Port
WEAVER NAVIGATION
Chester
Winsford
Middlewich
MACCLESFIELD CANAL
TRENT & MERSEY CANAL
Chesterfield
CHESTERFIELD CANAL
Gainsborough
FOSSDYKE NAVIGATION
WITHAM NAVIGATION
TRENT NAVIGATION
N. E.
SHROPSHIRE
UNION
CANAL
CROMFORD CANAL
EREWASH CANAL
DERBY CANAL
NOTTINGHAM CANAL
NOTTINGHAM
BEESTON CANAL
GRANTHAM CANAL
Grantham
N. W.
GRAND UNION CANAL
LEICESTER
R. NENE
BIRMINGHAM CANAL
COVENTRY CANAL
ASHBY CANAL
STOURBRIDGE EXT. CANAL
STOURBRIDGE CANAL
STAFFS & WORCS CANAL
BIRMINGHAM
Coventry
OXFORD CANAL
Stourport
WORCESTER & BIRMINGHAM CANAL
STRATFORD ON AVON CANAL
GRAND UNION CANAL
Northampton
Worcester
Stratford on Avon
R. SEVERN
S. E.
Reference
BRITISH TRANSPORT WATERWAYS
Broad
Narrow
Divisional Boundaries
INDEPENDENT WATERWAYS
Reproduced from the Ordnance Survey map with the sanction of the Controller of H.M. Stationery Office
Crown Copyright Reserved
SCALE OF MILES
10
S. W.
BRECON & ABERGAVENNY CANAL
GREATER SOUTH WALES DOCKS ADMINISTRATION
SWANSEA
Newport
Penarth
CARDIFF
Barry
GLOUCESTER DOCKS
GLOUCESTER SHIP CANAL
LYDNEY DOCKS
SHARPNESS DOCKS
Oxford
Bishop's Stortford
Hertford
R. STORT
LEE NAVIGATION
REGENT'S CANAL DOCKS
R. THAMES
Brentford
LONDON
Reading
BRISTOL
KENNET & AVON CANAL

3. The South-Western Division is based on the Severn estuary and its waterways are related to the ports of Avonmouth, Gloucester, Sharpness, Barry, Lydney, Cardiff, Newport and Swansea.
4. The South-Eastern Division is based on the Thames estuary and its waterways give access to the Port of London and to the Midlands.

Canals in Scotland, which are separately administered, are the Caledonian Canal, the Crinan Canal, the Forth and Clyde Canal and the Union Canal.

There are about 1,130 miles of broad waterways which can be used by craft with from 50 to 400 tons capacity and about 1,040 miles of narrow waterways which can generally be used only by boats not exceeding 7 feet in width with a load varying from 25 to 30 tons. Broad waterways are mainly the canalized rivers—e.g., the Severn, Lee and Stort Navigation, Trent Navigation, and Aire and Calder Navigation, while narrow waterways are mainly the canals in the interior—e.g., the Grand Union, the Shropshire Union, and the Birmingham network. The canals in Scotland are broad. Of the total mileage, 266 miles have been closed and another 486 miles are no longer used by commercial traffic. Most of the traffic on the waterways is carried by independent carriers or by traders in their own craft. The British Transport Commission, however, at the end of 1954 owned 24 tugs and 1,229 carrying craft with a carrying capacity of 43,697 tons, including 230 power-driven craft with a carrying capacity of 8,225 tons.

Survey of Waterways

Since assuming control, the British Transport Commission has taken steps to strengthen the commercial organization so as to secure increased traffic, improved dredging methods and equipment, brought better types of craft into service, established a research organization and undertaken various development works including the elimination of dangerous bends and the opening up of bottle-necks. During the six years 1948 to 1953 over £1 million was spent on arrears of maintenance and £500,000 on new plant and equipment, and the total traffic carried increased from 10 to 13 million tons. Over half the traffic is coal and nearly 2 million tons is liquid in bulk. About 98 per cent of the traffic is carried on 1,200 miles of waterway, indicating a serious problem of moribund canals.

In April 1954 the Commission appointed a Board of Survey to examine its inland waterways, to report on whether they were being used to the best possible advantage and to suggest what should be done with those which could no longer be put to economic commercial use. The Board of Survey reported in 1955. It recommended, *inter alia*, that a separate organization, British Transport Waterways, should be set up for the waterways (this has been done, see p. 219); that certain waterways of a total mileage of 771 should not be retained for navigation; and that responsibility for the canals in Scotland should be transferred to the Secretary of State for Scotland.

LONDON TRANSPORT

London's transport system, in its modern sense, may be said to have begun when in 1829, four years after the opening of the Stockton and Darlington Railway, the first omnibus—horse-drawn—appeared on the London streets. Trams, also horse-drawn, appeared in 1861. In 1863 the first underground steam railway, the Metropolitan, was built by digging a great trench for the line and roofing it over. In 1870 a better method for building a railway inside a city was found when the Tower Subway was constructed. The line was laid in an entirely underground tunnel shaped like a hollow tube and thus became the world's first tube railway. In

1890 the City and South London, the first electric tube railway in the world, was opened, and it was followed soon after by the Central London Railway, called the 'twopenny tube' because all journeys on it cost twopence. Soon after this, buses and trams ceased to be horse-drawn and used petrol and electricity respectively for their motive power, and trams, buses and underground railways rapidly developed into the vast network of London's transport system.

Until 1933 there was no unified operation. The large number of transport interests included: the main line railways with their suburban services; an Underground Group controlling most of the underground railways; the London General Omnibus Company's buses, Green Line coaches and three tramway companies; the independent Metropolitan Railway Company; London County Council tramways; 13 municipal tramway undertakings; and some 60 small independent bus undertakings. But in 1933, the whole system, except the main line railways' suburban services, was vested in a public corporation, the London Passenger Transport Board. During the 1939–45 war, London transport was taken over by the Government and operated, like the main line railways, through the Railway Executive Committee. In 1948, following the establishment of the British Transport Commission, the London Transport Executive took over control.

The London Transport Executive is responsible for the operation of passenger road and rail services in the London area with the exception of the main line railways, certain suburban services which came under the Railway Executive, and taxicabs, which are all privately operated by companies or owner-drivers.[1]

The Executive consists of a chairman and five members, of whom four are full-time and one part-time. The chairman and full-time members each have special functional responsibilities apart from their general responsibility for the smooth running of the London Transport system.

The operation of London's transport is a vast undertaking. It serves an area of 2,000 square miles, extending for an average distance of 25 miles from Charing Cross in the centre of London. It covers, in whole or in part, 10 counties, the cities of London and Westminster, 27 other metropolitan boroughs, 2 county boroughs, 48 municipal boroughs, 59 urban and 29 rural districts. The total population of the area approaches 10 million.

From north to south the railway stretches 18 miles, from east to west 32 miles and from north-west to east 49 miles. The total length of the railway over which London Transport trains operate is 253 miles, of which a third is underground, including the longest tube tunnel in the world, 17¼ miles. London Transport trains serve 277 stations.

Diesel buses travel over roads whose total length is 2,300 miles, coaches over 660 miles, trolleybuses (which use electricity) 253 miles.

To carry traffic over all this area, the London Transport Executive in December 1954 owned 4,036 railway coaches, 8,404 buses and coaches, and 1,764 trolleybuses. The total staff employed at the end of 1954 was 91,000, of whom 11,500 were women. The total number of passenger journeys in 1954 was 4,100 million, or about 11½ million every day.

The challenge to the efficiency of London Transport presented by growing traffic is being met by a continuous process of development. Thus, since the end of the war, all remaining trams have been replaced by buses, extensions to the Underground railway have been built and more efficient light alloy trains have been introduced. Current development plans include a new tube railway from the north-east to the west-end of London for which powers to build are being sought.

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[1] During 1954 in the Metropolitan Police District, which covers the counties of London and Middlesex and parts of Essex, Kent, Surrey and Hertfordshire, annual licences were issued for 5,553 taxicabs; licensed taxicab drivers at the end of 1954 numbered 9,039.

THE ULSTER TRANSPORT AUTHORITY

Public inland transport in Northern Ireland, with the exception of passenger transport in the City of Belfast, the railway system previously owned by the Great Northern Railway Company (Ireland), and some small rail and road transport undertakings, is owned and controlled by the Ulster Transport Authority, established under the Transport Act (Northern Ireland), 1948. The railway system formerly operated by the Great Northern Railway Company (Ireland) has passed to a public body called the Great Northern Railway Board, established on 1st September 1953 by the Northern Ireland and Republic of Ireland Governments.

Before the 1948 Act was passed, all the railways in Northern Ireland were separately owned but, from 1935, road transport (except for passenger transport in Belfast City and certain types of specialized and ancillary freight haulage) was under the control of the Northern Ireland Road Transport Board, a public undertaking formed to provide public transport services by road and to co-ordinate these services with those of the railways. Now the Ulster Transport Authority operates all the road services formerly provided by the Northern Ireland Road Transport Board, together with the railway services provided before 1949 by the Northern Counties Committee of the British Railways Executive and by the Belfast and County Down Railway Company.

When the railway undertaking of the Northern Counties Committee was acquired by the Ulster Transport Authority from the British Transport Commission in 1949, it was agreed that each of the parties should co-operate with the other to 'foster and encourage by all means in their power traffic and intercourse between Great Britain on the one hand and Northern Ireland on the other and to . . . maintain the principles of through rates and fares and facilities as between places in Great Britain and places in Northern Ireland'.

The following figures for the year ended September 1954 show the scope of the Ulster Transport Authority's operations:

Railway track mileage: broad gauge	301 miles
narrow gauge	15 miles
Road route mileage	2,625 miles
Locomotives	82
Railway coaching vehicles	313
Railway freight vehicles	2,378
Omnibuses and coaches	1,096
Goods motor vehicles	1,158
Employees	9,313
Passengers carried during year	106,386,739
Merchandise carried during year	1,741,209 tons
Livestock carried during year	1,720,874 head
Number of transport stations and depots	149
Hotels	5

CIVIL AVIATION

British civil aviation is now organized as follows:

1. Responsibility for its general development and supervision rests with the Minister of Transport and Civil Aviation.[1]
2. Scheduled public air transport services are reserved to the two public corporations—British Overseas Airways Corporation (BOAC) and British European Airways (BEA)—and their associates. Such services are those operated regularly or systematically between two places, one of which is in the United Kingdom, for the transport of passengers, mail or cargo for remuneration, in such a manner that each flight is open to use by members of the public.
3. Non-scheduled or charter flights are operated in the main by independent air transport companies, although the Corporations undertake such flights as opportunity offers with aircraft not required for their scheduled services at any particular time. Some of these independent firms have large fleets of aircraft and many of them operate scheduled services as associates of one or other of the Corporations.

Early Development

British airmen were the first to carry mails (at the time of the Coronation of H.M. King George V in 1911) and the first to operate regular mail and passenger services. The actual inauguration of civil air transport came on 25th August 1919, when a daily passenger service was opened between London (Hounslow) and Paris (Le Bourget) by a company called Aircraft Transport and Travel Limited. The year 1919 was also marked by notable pioneer flights including the crossing of the Atlantic by John Alcock and Arthur Whitten Brown in June (both were later knighted for their achievement) and the first flight between England and Australia by Captain (later Sir) Ross Smith and his crew in November.

In 1923 a Civil Air Transport Subsidies Committee recommended the merger of the four existing small British companies into one organization capable of developing oversea routes. In April 1924 the merger took place and there came into being Imperial Airways Limited, which received a Government grant of £1 million spread over the next 10 years. As a substantial shareholder the Government was represented on the Board of Directors.

Imperial Airways Limited proceeded to pioneer the commercial development of intercontinental air-routes, following up, in most cases, the exploratory work of the Royal Air Force. Pioneering involved organizing the ground services upon which civil aviation could rely. The route to the Far East came first. In 1927, a link was established between Cairo and Basra and by 1929 there was a through service from England to India. In 1931 the first service was established to Central Africa. The first mail service between London and Australia was begun in December 1934, followed by a passenger service in 1935.

In 1937 crossings of the Atlantic were made simultaneously by Imperial Airways with the modified 'Empire' class flying-boat and by Pan American Airways. In 1939 a transatlantic service was operated by both companies. The British Overseas

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[1] Up to 1945 civil aviation was administered by the Department of Civil Aviation of the Air Ministry. Between 1945 and 1953 the Ministry of Civil Aviation was the responsible Government Department. But, in October 1953, the Ministries of Civil Aviation and of Transport were amalgamated. In the rest of this section, reference will usually be made only to 'the Minister' or 'the Ministry'.

Airways Corporation was established by the British Overseas Airways Act, 1939, and took over the undertakings of Imperial Airways Limited and British Airways Limited in 1940.

During the second world war the British Overseas Airways Corporation operated essential oversea air services in support of the war effort. By the end of the war it was carrying more than twice as many passengers as in 1939 and more than three times as much freight. The routes were, moreover, left with efficient radio and radar systems installed for war purposes which were adapted for civilian use. There were also about 700 aerodromes in the United Kingdom, but most of them, having been constructed for war purposes away from large towns, were unsuitably placed for civil use.

The one serious obstacle to a continued expansion of British civil air transport after the war was the absence of any new British civil aircraft to take the place of the pre-war types. The British aircraft industry throughout the war had concentrated entirely on the production of fighters and bombers for the Allied Forces, leaving the production of all transport aircraft to the Americans. Since the evolution of a new airliner takes anything from five to ten years, there was an awkward gap in the natural development of British civil air services which could be filled only by the use of uneconomical converted military types, or the purchase of foreign aircraft. Both expedients together with the use of the highly successful interim short-range *Viking* aircraft were, in fact, used while the British aircraft industry concentrated on the development of the turbo-jet and turbo-prop airliners, e.g., *Comets*, *Viscounts* and *Britannias*.

The Corporations

As already noted, the British Overseas Airways Corporation (BOAC) was set up in 1939. The Civil Aviation Act, 1946, set up two additional public corporations; British European Airways (BEA) to cover the United Kingdom and Europe, and British South American Airways (BSAA) to operate to South America and the Caribbean, leaving the North Atlantic and Eastern Hemisphere routes to BOAC. In 1949 BSAA was merged into BOAC by the Airways Corporations Act of that year. The statutory provisions (now laid down by the Air Corporations Acts, 1949 and 1953) relating to the powers, constitution, etc., of BEA and BOAC are as follows:

Operations. Scheduled services are reserved to the two Corporations, working alone or through associates. They can also engage in charter work. They may not manufacture airframes, aero-engines or propellers.

Constitution. Each Corporation consists of a chairman, deputy chairman and not fewer than five or more than eleven directors. Appointments are made by the Minister who, in the case of BOAC, may, if he wishes, appoint two deputy chairmen.

Finance. Each Corporation may, with Treasury consent, borrow either by raising temporary loans or by issuing stock, to a maximum of £80 million in the case of BOAC and £35 million in the case of BEA. The Treasury may guarantee redemption or repayment of, and payment of interest on, any stock issued and temporary loans raised. Provision is also made for Exchequer grants up to a limit of £8 million a year (for both Corporations together) until April 1956, so as to enable the Corporations to build up their organization and services over a period of years. (For 1946–47 and 1947–48 the maximum was £10 million.) Since 1952–53 BOAC have operated without Exchequer grant. The Corporations are not exempt from liability for any taxes or rates.

Accounts. Statements of accounts in a form approved by the Minister and the Treasury have to be prepared by the Corporations for each financial year. The accounts are audited by auditors appointed annually by the Minister.

Annual Reports. Each Corporation must also make an annual report to the Minister, and the Minister must lay a copy of this report and of the accounts before both Houses of Parliament. In addition, each Corporation must submit before the beginning of every planning period (each three-year period, beginning 1st April 1947) a programme of the services it proposes to provide and of any other activities it proposes to engage in, as well as an estimate of its receipts and expenditure on revenue and capital account during the period.

Labour Relations. Each Corporation must, unless it is satisfied that adequate machinery already exists, consult with any organization which it considers appropriate with a view to establishing machinery for settling terms and conditions of employment and for discussing matters affecting the safety, health and welfare of its employees and other matters of interest to both parties, including efficiency in operating the Corporation's services. In 1946 the *National Joint Council for Civil Air Transport* was set up as the body through which terms and conditions of service between the Corporations and the 18 Trade Unions representing the employees are negotiated. A number of the independent air transport companies have since become members of the Council.

Ministerial Control. The Corporations conduct their own affairs as commercial businesses. The Minister can give general directions on matters affecting the national interest but in practice this power is rarely, if ever, used, since it has been found much more suitable to proceed by means of close consultation and discussion with the Corporations. In fact, the Minister has maintained closer control over them than has been the case for the other nationalized industries. This has largely been the consequence of the payment of subsidy to the Corporations through the Exchequer grants, since this has meant that the Minister has had to discharge a considerable responsibility for their general efficiency. He has to decide in consultation with the Treasury what grants, within the ceiling of £8 million, should be given to each Corporation in any particular year. This necessitates a close examination of the Corporations' programmes of air services and estimates. The Minister also keeps in close touch with the Corporations regarding plans for new aircraft and new routes since he has to negotiate the necessary rights with foreign governments. He also provides most of the aerodromes from which the Corporations operate and the navigational aids and communications necessary to the conduct of their flights. Contact between the Corporations and the Ministry is, therefore, close, mainly in the form of daily informal exchanges of information between their staffs.

Independent Companies

The Government considers that non-scheduled or charter services are mainly the domain of the independent companies. The Corporations are not precluded from engaging in this work but they do not maintain aircraft specially for it. The operation of scheduled services by independent companies under associate agreements with the Corporations was introduced in 1948. Applications to operate these services were considered by the Air Transport Advisory Council (see p. 242), which recommended to the Minister whether or not approval should be given. In the main, agreements were of short duration, the routes being those which the Corporations did not, at the time, plan to operate, e.g., some internal routes, short-haul ferry services across the English Channel and a few holiday routes to the Continent.

The opportunities for independent companies to take part in air transport developments were increased in 1952. In May of that year the Minister outlined the principles which would be followed in shaping the Government's policy for air transport development. These were broadly to combine public and private enterprise in the best interests of British civil aviation; and to promote sound development, reduce the cost to the taxpayer and give greater opportunities to private enterprise without impairing the competitive strength of Britain's international services and without undermining the existing international networks of BOAC and BEA.

This policy is being implemented within the existing legislation so that independent companies seeking to take advantage of new opportunities to operate scheduled services continue to be appointed associates of one of the Corporations. Applications by independent companies continue to be made to the Air Transport Advisory Council but are considered under new terms of reference issued to the Council in July 1952. Under these terms of reference, the Corporations' position is safeguarded by reserving to them the sole right to operate first and tourist class services on their established routes. Independent companies and the Corporations alike, however, are eligible to apply for the right to develop new routes not so reserved and new types of scheduled services: for example, international services which do not serve the same traffic areas as services by BEA or independent companies already approved; services operated solely for the carriage of freight and 'Colonial coach class' services (i.e. services to United Kingdom territories overseas providing a lower standard of service than the tourist class and so generating a new class of traffic).

The Air Transport Advisory Council considers applications in the light of its terms of reference and, after hearing evidence from interested parties, makes recommendations to the Minister. Approval of the operations of scheduled services by independent companies as associates of the Corporations is now normally given for seven years with extension to ten years in special circumstances, for example, where the purchase of new aircraft is involved. In this way, it is intended to give independent companies sufficient long-term security to justify capital outlay and expansion.

Operations

The latest available information about the services, fleets and results of the two Corporations, and the activities of the independent companies are summarized below.

British Overseas Airways Corporation

The British Overseas Airways Corporation (BOAC) operates scheduled services to the Middle and Far East and to Australia, with terminals at Sydney, Tokyo, Hong Kong, Singapore, Colombo, Karachi, Bahrein, and Aden; to Africa with terminals at Johannesburg, Nairobi, Accra/Lagos and Dar es Salaam; and to North and South America and the Caribbean with terminals at New York, Chicago, Montreal, Jamaica and Trinidad. There are regional services between New York and Bermuda, Nassau and Montego Bay; the services between New York and the last two points operate as extensions of the London–New York route. The routes to Central and South Africa are operated in co-operation with Central African Airways and in partnership with South African Airways, and the route to Sydney in partnership with Qantas Empire Airways of Australia. Qantas carries on the service from Australia by operating routes to North America—formerly operated by British Commonwealth Pacific Airlines which went out of existence on 31st March 1954—

and it will connect with the planned extension to San Francisco of BOAC's North American service. Tasman Empire Airways, jointly owned by the Australian and New Zealand Governments, operates services between Australia and New Zealand and from New Zealand to Fiji and other islands of the South Pacific.

This network of services (see front end-paper map) is supplemented by the activities of subsidiary and associated enterprises overseas in which BOAC participates financially or with which it has technical or management agreements.

Those in which BOAC has a controlling financial interest include *Aden Airways Ltd.*, which develops services in the Red Sea area; *Bahamas Airways Ltd.*, providing services linking the islands of the Bahamas with each other; *British West Indian Airways Ltd.*, providing services throughout the Caribbean area; and *Gulf Aviation Company Bahrein Ltd.*, which operates between Bahrein and nearby ports of call. Those with which BOAC is associated either financially or through advisory and other agreements include *Aerolinee Italiane Internazionali* (*Alitalia*) which operates services within Europe and also to East Africa, the Middle East and South America; *West African Airways Corporation* and *East African Airways Corporation*, serving West and East Africa; *Malayan Airways Ltd.*, which operates services in the Federation of Malaya, Singapore, North Borneo, Brunei and Sarawak and services between those territories and the Asian mainland; *Cyprus Airways Ltd.*; *Iraqi Airways*; *Kuwait National Airways* and *Arab Airways*. BOAC, like BEA, is also associated with *International Aeradio Ltd.* (see p. 245).

To implement its policy of extending the benefits of air travel to a wider public by charging lower fares, BOAC has introduced tourist services on many routes and by the end of March 1955, 43 per cent of BOAC's available seat mileage was offered at tourist fares.

On all its services, BOAC carried, in 1954–55, 291,136 passengers, 6,003 tons of freight and 3,407 tons of mail. The figures in 1947–48 were 115,675 passengers, 2,447 tons of freight and 2,088 tons of mail.

BOAC's fleet in the summer of 1955 consisted of: 22 *Argonauts*, 16 *Constellations*, 16 *Stratocruisers* and 4 *Yorks*.

The *Comet I* (with which the world's first scheduled jet service was started on 2nd May 1952) had been progressively introduced into the Corporation's fleet until April 1954, when, following accidents which involved the loss of two aircraft, it was withdrawn from service pending the report of a Court of Inquiry. This report was published in February 1955. The Court found that the cause of the accident to the *Comet* wrecked off Elba in January 1954, was the structural failure of the pressurized cabin brought about by fatigue. The Court thought it possible that the same cause accounted for the loss of another *Comet* near Naples in April 1954. It made a number of recommendations designed to prevent future similar accidents and these have been accepted by the Government. BOAC has retained its faith in the future of the *Comet* and has ordered 19 of a Mark IV *Comet* from de Havillands, the manufacturers, which will incorporate the improvements in structural design which are the outcome of research and of the findings of the Court of Inquiry. Delivery of these aircraft will begin in 1958. In 1956, it is expected that the Mark 100 *Britannia*, which carried out successful trials in Africa in 1955, will be introduced into service first on the South African route and subsequently on the Australian and Far East routes. Progress is also being made in the development of the long-range Mark 300 *Britannia*, which it is hoped will enter into passenger service with BOAC early in 1957.

In the year 1951–52 BOAC for the first time made a net profit after allowing for interest on capital and before crediting the Exchequer grant of £1½ million. In 1952–53, when the profit (before providing for interest on capital) was reduced from £1·2 million to £104,000 mainly owing to an increase in costs—including increased wage rates and costs of materials, spares and fuel—BOAC abstained from claiming any Exchequer grant and the deficit of £839,000 remaining after paying interest on capital was carried forward. In 1953–54 the profit was £2 million, and after paying interest on capital and providing for future income tax and profits tax, there remained a balance of £936,911 to be applied to the reduction of the accumulated deficiency. In 1954–55, a year made difficult by the withdrawal of the *Comets* from service in April 1954, the profit fell to £1·4 million and, after paying interest, the surplus was £262,000. At the end of March 1955 the Corporation's accumulated deficiency was £862,000 compared with £4·4 million in March 1950.

Over the whole eight-year period up to the end of March 1955, the capacity on BOAC services increased from 89·5 million to 214·9 million ton miles; operating revenue increased from £14·6 million to £36·9 million; operating costs were reduced from 57·7 pence per ton mile to 39·9 pence; and the break-even load factor (the proportion of aircraft space it is necessary to sell in order to cover all costs of operation and administration including interest on capital) fell from 115 per cent to 63 per cent.

British European Airways

British European Airways (BEA) is the seventh largest airline in the world judged by annual number of passengers carried: 1,874,316 in 1954–55 when it operated on its own behalf, in conjunction with its associated companies and subsidiaries, a network of services covering 21,190 unduplicated route miles serving 67 airports in the United Kingdom, Europe and North Africa, within a periphery on which the farthest points to the north, south, west and east are Oslo, Cairo, Lisbon and Beirut. Its services within the United Kingdom include a number which cannot be operated commercially with the equipment now available but which meet a vital social need. These include services to the Highlands and Islands of Scotland, winter services to the Isle of Man and inter-Channel Islands services. Reduced tourist fares have been introduced on all BEA's domestic routes and on practically all its international routes. BEA maintains a close working relationship with BOAC, whose aircraft of necessity fly through a number of European stopping points on their way east and south. BEA also co-operates with other airlines in order to create 'through travel' facilities. In addition to passengers, BEA carried 14,884 tons of freight and 6,964 tons of mail in the year 1954–55.

A subsidiary of BEA, *Gibraltar Airways Ltd.*, operates services between Gibraltar and Tangier. BEA is associated financially with *Aer Lingus Teoranta*, working primarily between the Irish Republic and the United Kingdom; *Aerolinee Italiane Internazionali* (*Alitalia*) which operates services within Europe and also to East Africa, the Middle East and South America; *Cyprus Airways Ltd.*, which operates services to Turkey, Greece, Lebanon, Egypt, Jordan, Israel, North Africa, the Sudan and the Persian Gulf; and *Malta Airways Company Ltd.* BEA is also associated with *Société Internationale de Télécommunications Aéronautiques* (*SITA*), a Belgian company which provides communications circuits for subscribing operators; and, like BOAC, with *International Aeradio Ltd.* (see p. 245).

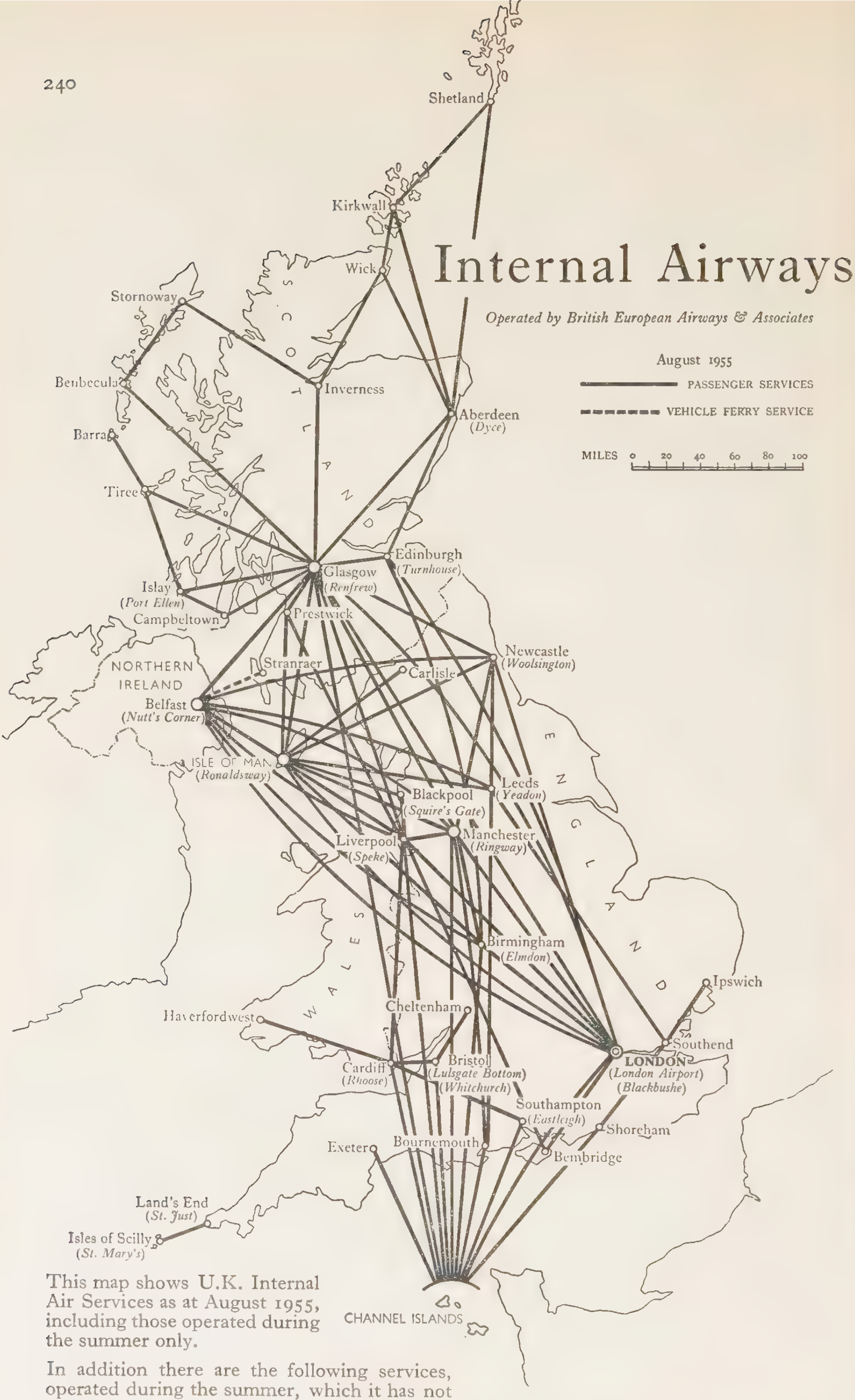
BEA's operational fleet in the summer of 1955 comprised: 19 *Elizabethans*, 26 *Viscounts*, 46 *Pionairs*, 6 *Islanders*, 6 helicopters and 2 *Herons*.

The *Viscount V.701* 'Discovery' class was brought into regularly scheduled service on 18th April 1953 on the routes to Istanbul and Cyprus, thus inaugurating the world's first commercial operations with propeller-turbine aircraft. During the summer of 1955 *Viscounts* were in operation on 16 European routes and on trunk route services between London and Manchester, Glasgow, Edinburgh and Belfast.

Internal Airways

Operated by British European Airways & Associates

August 1955


PASSENGER SERVICES
VEHICLE FERRY SERVICE
MILES 0 20 40 60 80 100
Shetland
Kirkwall
Wick
Stornoway
Benbecula
Barra
Inverness
Aberdeen (Dyce)
Tiree
SCOTLAND
Edinburgh (Turnhouse)
Glasgow (Renfrew)
Islay (Port Ellen)
Campbeltown
Prestwick
Stranraer
Carlisle
Newcastle (Woolsington)
NORTHERN IRELAND
Belfast (Nutt's Corner)
ISLE OF MAN (Ronaldsway)
Leeds (Yeadon)
Blackpool (Squire's Gate)
Manchester (Ringway)
Liverpool (Speke)
ENGLAND
WALES
Birmingham (Elmdon)
Ipswich
Cheltenham
Haverfordwest
Southend
LONDON (London Airport) (Blackbushe)
Cardiff (Rhoose)
Bristol (Lulsgate Bottom) (Whitchurch)
Southampton (Eastleigh)
Shoreham
Exeter
Bournemouth
Bembridge
Land's End (St. Just)
Isles of Scilly (St. Mary's)
CHANNEL ISLANDS

This map shows U.K. Internal Air Services as at August 1955, including those operated during the summer only.

In addition there are the following services, operated during the summer, which it has not been possible to insert:

DERBY—WOLVERHAMPTON—CHANNEL ISLANDS; COVENTRY—WOLVERHAMPTON—ISLE OF MAN; MANCHESTER—SOUTHAMPTON—ISLE OF WIGHT; BIRMINGHAM—COVENTRY—ISLE OF WIGHT; NEWCASTLE—LEEDS—BOURNEMOUTH—ISLE OF WIGHT.

A larger version of the *Viscount*, the *Viscount-Major*, is on order and is expected to enter into passenger service early in 1957. Plans are also in hand for the production of a new fleet of *Vanguards*, double-decked airliners to accommodate over 90 passengers, which, it is hoped, will be delivered in 1959–60.

Since 1950 BEA has operated various scheduled services with helicopters, in order to obtain experience in the civil operation of helicopters which can be used to assist the design and production of a commercial twin-engined British helicopter and the development of navigational aids and ground facilities. To begin with, BEA worked with the American type *Sikorsky S.51* but towards the end of 1951 the first British-built and designed helicopter suitable for scheduled flying, the *Bristol 171*, became available and BEA took delivery of its first two in June 1953 after working for a period with one lent to it by the Ministry of Supply. This, like the *S.51*, is a single-engined helicopter. A prototype twin-engined helicopter, the *Bristol 173*, has been developed but the commercial version needed by BEA for the operation of the first network of passenger services is not likely to be available for airline service for some years. Two *Bell 47*s are used for training and experimental work.

As part of the process of obtaining experience, BEA operated a service from 15th June 1954 until 17th May 1955 with a *Bristol 171* between Eastleigh Airport, Southampton, and London Airport. The service operated daily except Saturdays and Sundays. An experimental passenger service between London Airport and the centre of London, operated with two *Sikorsky 55* single-engined machines, started in July 1955. A site on the South Bank of the Thames near County Hall has been developed as a temporary air station and is available for use by any helicopter coming into the centre of London.

Over the period 1947–48 to 1954–55, BEA's capacity increased from 22 million to 98 million ton miles, operating revenue from £4 million to £17·1 million, total costs were reduced from 83·6 pence per ton mile to 41·7 pence, and the break-even load factor on total costs fell from 115 per cent to 64·5 per cent. BEA is faced with the problem of securing adequate revenue from short-haul routes aggravated by a marked seasonal variation in its traffic.

In 1953–54 BEA earned for the first time a small operating surplus of £64,000, but after providing for depreciation and increased aircraft amortization charges, its net deficit was £1·8 million, against which was set an Exchequer grant of £1·5 million. In 1954–55 BEA achieved its first net profit of £63,000. Its accumulated deficiency at 1st April 1955 was £0·55 million.

Independent Companies

The operation of scheduled services by independent companies as associates of the Corporations has already been indicated. In 1954 some 356,000 passengers were carried by independent companies on scheduled services, compared with 133,000 in 1952 and 246,000 in 1953. The total traffic of the independent companies on scheduled services increased from 3,700,000 ton miles in 1952 to 11,000,000 ton miles in 1954. In addition, as already mentioned, non-scheduled or charter operations are regarded as mainly their province. They cover a wide range of business including moving troops on Government account; transporting to and from their place of work personnel belonging to commercial and other companies operating overseas; carrying livestock, including zoological specimens, machinery and other cargo; taking parties to football matches and race meetings in Britain; taking parties on trips or tours to oversea resorts; transporting, to and from the Hejaz, Mohammedans making the Pilgrimage to Mecca; and bringing perishable foodstuffs and flowers from the Continent to the United Kingdom market. There are also firms which specialize in such activities as aerial photography and crop spraying.

The independent companies engaged in business of this kind operate a total of 194 twin-engined and 80 four-engined aircraft. A number of these companies are members of the British Independent Air Transport Association Ltd. The larger of them have subsidiary companies abroad and in some cases provide the management of small foreign airlines. Much charter business is now arranged through the Air Section of the Baltic Exchange, the London market for shipping space. In this market, business from any part of the world is handled between brokers representing, on the one side, the owners of aircraft available for hire and, on the other, the prospective shippers of cargo or organizers of passenger trips. Inquiries for the charter of aircraft were first received on the Exchange as long ago as 1925 but it was not until 1947 that an Air Section was formed. To assist the market, the Baltic Exchange set up an air freight advisory committee but this was dissolved on 1st February 1949 when the Airbrokers' Association was formed. Among other aims, the Association seeks to promote and establish uniformity in transactions and usages in the airbroking trade, to establish in London a world market for chartering aircraft to carry cargo and passengers, to represent the interests of its members to Government Departments and other bodies, and to provide commercial arbitration machinery for the assistance of its members.

A recent development has been the increasing participation of shipping finance in independent air companies: e.g., the Clan line has acquired a 50 per cent non-controlling interest in the Hunting Group, Furness Withy has acquired a substantial interest in Airwork Ltd., an associate of the Peninsular and Oriental Steam Navigation Company, Ltd. (P and O) has acquired a majority shareholding in another independent company, Britavia, and the Bibby Line has acquired a substantial holding in Skyways Ltd.

Powers and Duties of the Minister

The Civil Aviation Act of 1949, which superseded both the Ministry of Civil Aviation Act, 1945, and the Civil Aviation Act, 1946, gives the Minister the duty of 'organizing, carrying out and encouraging measures for the development of civil aviation, for the designing, development and production of civil aircraft, for the promotion of safety and efficiency in the use thereof, and for research into questions relating to air navigation'.

Under the heading 'measures for the development of civil aviation' come the Minister's relationship to the Corporations (as laid down in the Air Corporations Act of 1949) and his general responsibility for carrying out policy; participation in the International Civil Aviation Organization; responsibility, in concert with the Foreign Office and Commonwealth Relations Office, for dealing with other countries in civil aviation matters; and the work of the *Air Transport Advisory Council.* This body was established by the 1946 Act primarily to bring to the Minister's notice important representations from the public concerning any inadequacy in the services provided by the Corporations. It was also laid down that its duties should include the study of any question related to the air transport services which the Minister may refer to it. Under this provision, the Minister has given the Council the task of considering and making recommendations to him on applications from independent companies to operate scheduled services as associates of one of the Corporations. This has, in fact, provided most of the Council's work, which has been increased following the Government's decisions in 1952 (see p. 237).

The Act requires that the chairman of the Council must be a lawyer and, of its two to four members, at least one must be experienced in the operation of air transport services and one in other forms of transport. The Council makes an annual report to the Minister who lays it before Parliament.

The supervision of design, development and production of civil aircraft has been delegated to the Ministry of Supply, which is also responsible for the provision of all Service aircraft and carries on an extensive programme of research and development to meet civil and Service needs. The Minister of Transport and Civil Aviation is specifically debarred from 'producing' aircraft, and any dealings he may have in aircraft, engines and equipment are subject to Treasury approval.

In exercising his responsibility for safety, the Minister regulates the operation of aircraft and controls the licensing of flight crews. On all safety matters, the Minister may call upon the advice of the *Air Safety Board*, a standing advisory body of experts responsible to him for keeping under continuous review the needs of safety in British civil aviation and for recommending measures calculated to promote safety, in respect of both the operation of British civil aircraft throughout the world and the efficiency of the system of ground facilities provided for all civil aircraft operating over the United Kingdom.

On airworthiness matters the Minister is advised by the *Air Registration Board*, to which he has delegated certain functions relating to the design, construction and maintenance of civil aircraft. The Board is a non-profit-making incorporated body which was set up in February 1937 and consists of 18 members, of whom 16 represent the interests concerned with civil aviation and two are appointed by the Minister. The Board is responsible, *inter alia*, for the investigation of aircraft for the purpose of making recommendations to the Minister for the issue of Certificates of Airworthiness. Persons engaged in the maintenance of civil aircraft must be the holders of appropriate licences issued by the Board or be members of firms approved by the Board for the purpose.

The Minister is authorized (as are local authorities, subject to his approval) to establish and maintain aerodromes for civil aviation. All civil aerodromes not under the Minister's direct control, which are used for commercial operations, are subject to his licensing, inspection and regulation.

The Minister is responsible for determining the conditions, e.g., use of aerodromes and choice of routes, under which aircraft may fly within the United Kingdom and of those under which passengers or cargo may be carried. He is also responsible for various other matters, including the use of signals to and from aircraft, the prevention of interference (e.g., from displays of lights and signs from shops) and with the effectiveness of navigational aids. The Minister is jointly responsible with the Minister of Health for sanitary control at his aerodromes and he also assists the appropriate Departments in the application of customs and immigration regulations.

Aerodromes

There are approximately 100 civil aerodromes in the United Kingdom and, in addition, about 50 Service aerodromes are available for civil use. Those under civil control include 28 directly controlled by the Ministry, 3 in the Channel Islands and 1 in the Isle of Man administered by the local governments, and 24 aerodromes licensed for public use, of which 15 are owned by municipalities. Customs facilities are provided at 15 of the Ministry's aerodromes and at 12 others. The Ministry, which provides the Colonial Office with advice on civil aviation matters, has also assisted United Kingdom dependencies overseas in equipping and maintaining civil aerodromes and necessary technical facilities to accepted international standards.

The main airports used by international scheduled services in 1954–55 were:

for European services: London, Renfrew, Birmingham (Elmdon), Manchester (Ringway);

for North Atlantic services: London, Prestwick, Manchester (Ringway);

for South Atlantic, Middle East, Africa and Far East services: London.

Substantial increases in aircraft and passenger movements at the principal aerodromes have continued from 1945 to 1954. In the latter year, all United Kingdom aerodromes handled over 4¼ million passengers. Of this total London Airport dealt with 1,724,000 and Northolt 493,000 between January and 31st October when it was finally closed to civil flying and all services transferred to London. Outside the London area, Manchester (Ringway) handled the largest number, 262,000; followed by Glasgow (Renfrew), 258,000; Prestwick 192,000; Belfast (Nutt's Corner) 189,000; and Isle of Man (Ronaldsway) 163,000. The number of movements of aircraft engaged on commercial transport operations in 1954 was 232,000 for all United Kingdom aerodromes. The Central Terminal Area at London Airport was opened on 17th April 1955. On that day the airport was divided into two parts for traffic purposes, 'London Airport North' and 'London Airport Central'. Broadly, the long-haul services and Royal Dutch Airlines (KLM) continued to be handled at the North terminal; the bulk of the European short-haul services have been transferred to London Airport Central.

As the main alternate to London Airport, to be used when bad visibility involves diversion and also as a base for seasonal services and charter operators, it has been decided to develop Gatwick, 25 miles south of London, while Blackbushe, west of London, will be used as the supplementary aerodrome to handle aircraft which for any reason cannot use the main alternate. Prestwick is being developed as the second international airport in the United Kingdom.

Air Traffic Control

The main air traffic control centres are in London for Southern England, Preston for the North and Prestwick for Scotland and the Atlantic, while each airport has its own traffic control unit.

An airliner flying into Britain comes first under the control of one of these centres. It enters a Control Zone by one of the routes leading up to it, called National Airways. Each airway has a number of traffic lanes one above the other at intervals of 1,000 feet. The airliner must fly along one of these lanes at a height specified by Control. This ensures that it can pass from the coast to the control zone at its destination without any other aircraft being in that section of the airway at that height at the same time. As the airliner reaches the control zone boundary, it is passed to the airport control tower. It is brought to within a few miles of the airport by the Approach Controller and then handed over to the Aerodrome Controller for landing and taxi-ing instructions.

Radar plays an important part in air traffic control, monitoring the flight of aircraft along the airways and guarding their safe separation from each other. It enables aircraft to be brought to the runway in close succession and ensures safe separation to be maintained between arriving and departing aircraft. Even in bad weather a pilot can be brought down to within sight of the runway by means of the radio and radar aids now in use, such as the Ground Controlled Approach system (GCA), operated by a mobile radar unit on the airport, which provides the control officer on the ground with a picture of the aircraft's position in the air, and the Instrument Landing System (ILS), which operates an indicator in the pilot's cockpit to guide him along the correct course and angle of descent required for the approach. Meteorological information is provided by the Meteorological Office of the Air Ministry (see p. 43).

Navigational Aids

Adequate radio navigational facilities are essential to enable aircraft to remain safely within controlled airspace and to make accurate estimates of their times of arrival.

The airways are marked by a series of beams from medium frequency radio ranges and by radio beacons. By listening to the signals received in his aircraft and by watching his radio compass, the pilot steers the aircraft along the required route. During the next two or three years a number of very-high-frequency (VHF) omnidirectional radio ranges will be installed at strategic points in the country. This static-free system which shows on an indicator in the cockpit that the correct track is being maintained by the aircraft may eventually replace many of the present medium frequency ranges and beacons. In addition, the coverage provided by the three Decca 'chains' now operating in Britain will enable any aircraft fitted with the appropriate receivers and automatic flight log to follow any of the air patterns at present planned. The pilot of such an aircraft can obtain a 'fix' of his position by the readings of two meters recording radio signals from ground stations of the Decca Air and Marine Navigator System. The process of deriving the position from the readings is unsuitable when a pilot is operating in air traffic control areas of high density and so the flight log was evolved whereby the aircraft's track and position are presented continuously on a chart. Further improvements of the system are being developed.

A vital part of the technical services provided by the Ministry is a network of radio stations giving communication between ground and air. About fifty of these stations, at aerodromes and other places, provide rapid and efficient communication operating in the VHF band to aircraft in flight over and near the United Kingdom. Special stations at Birdlip (Gloucestershire) and Prestwick (Scotland), operating in the high frequency (HF) band, maintain communication with aircraft on the long-distance routes such as the North Atlantic and South African routes. There is also an extensive system of point-to-point communication between aerodromes and air traffic control centres in the United Kingdom, and to places abroad. Over this system are transmitted such messages as flight plans and weather, so vital to safety and regularity. The main United Kingdom signals centre is at Croydon (near London), where an entirely new station, specially designed for the purpose, sends and receives traffic over a network of teleprinter and radio circuits. Its handling capacity is about 30,000 messages a day.

On routes outside the United Kingdom, British airline operators rely upon ground organization provided by the countries over which they fly. In January 1947 the Airways Corporations (which at that time included BSAA) took the initiative in forming a company, registered in the United Kingdom, called *International Aeradio Limited* (IAL), for the purpose of helping countries in need of assistance in providing radio communications, flying control and navigational facilities for civil aviation. Airlines of other countries have accepted invitations to become shareholders and the membership is broadly representative of international civil aviation. IAL operates by entering into contracts with Governments to provide whatever degree of assistance is required to enable States or Administrations to fulfil the international obligations resting on them under the Chicago Convention on Civil Aviation for the provision and maintenance of ground facilities for civil aviation. By 1954 International Aeradio Ltd. was carrying on functions of various kinds at 74 places in 30 oversea countries, as well as at Yeadon (Yorkshire) and Cranfield (Bedfordshire) in the United Kingdom; its network of radio and other facilities was being used by over 290 operating companies.

The *Air-Sea Search and Rescue Service*, operated by the Royal Navy and the Royal Air Force, is available to civil air operators within the United Kingdom area and along the oversea routes wherever there are Royal Navy and RAF stations.

THE POST OFFICE

The Post Office with its staff of nearly 338,000 is a Government Department. It is also the oldest of Britain's nationalized undertakings. In 1649 a resolution in the House of Commons declared that 'the office of Postmaster is and ought to be in the sole power and disposal of Parliament'.

The ministerial head of the Post Office is the Postmaster-General, who, with the Assistant Postmaster-General, is responsible to Parliament for his Department. He is subject to the overriding authority of Parliament and the Cabinet, and, on many questions, of the Treasury. The Postmaster-General is chairman of the Post Office Board, composed of the principal permanent officials of the Department, which discusses and gives advice on matters of general policy, and he normally presides over meetings of the Post Office Advisory Council, on which the principal users of the Post Office services are represented.

Under the Postmaster-General, the permanent head of the Post Office is the Director General, who is supported by four Deputy Directors General and an Engineer-in-Chief. At the next level there are seven Directors responsible respectively for Posts, Inland Telecommunications, Finance and Accounts, Radio and Accommodation, External Telecommunications Executive, Establishments and Organization, and Personnel. The Comptroller and Accountant General, one of the Deputy Directors General, is responsible for the whole of the accounting system and advises on financial matters. In addition, responsibility for their several specialist functions rests with the Solicitor, the Public Relations Officer, the Directors of Savings and of Contracts, and the Controllers of Supplies and of Factories. The Post Office Headquarters is in St. Martin's-le-Grand in the City of London.

Six of the main divisions of work at Headquarters are carried down into the organization of the three directorates—Scotland, Wales and the Border Counties, and Northern Ireland, each under the control of a Director of the Post Office, and, in England, seven regions—the North West, the North East, the Midlands, the South West, the Home Counties, and London (which is divided into two functional regions, Postal and Telecommunications), each under the control of a Regional Director. In the United Kingdom there are 466 head post offices, 1,267 post offices and 22,938 sub-offices, and 6,188 telephone exchanges.

The staff at headquarters and in the directorates and regions is divided into two main groups: general civil service grades (administrative, executive and clerical) and special grades recruited directly by the Post Office for its engineering and operational activities.

The work of the Post Office falls into two main categories: (1) direct services—mail services, telecommunications, remittance and savings bank business; (2) agency services—broadcasting services and business undertaken on behalf of other Government Departments.

Mail Services

The development of postal communications in Britain can be traced from the time when horsemen carried dispatches to the Tudor Court up to modern airmail transport. In 1657, under the Protectorate of Cromwell, an Act was passed which declared that 'there shall be one general post-office and one officer, styled the Postmaster-General of England and Comptroller of the Post Office'. The eighteenth century saw a great expansion of the postal services with the introduction of mail-coaches in 1784. In the first half of the nineteenth century the Post Office was quick to take advantage of Britain's vigorous period of engineering and railway development, and the first dispatch of mails by train was made in 1830 between Liverpool and Manchester.

The heavy charges, based upon the actual distance a letter was carried, were among the factors which inspired Rowland Hill in his great work of postal reform that led to the establishment of a uniform postage rate. In 1840 a uniform inland rate of postage of one penny per half-ounce payable in advance came into operation—prepayment to be made by means of adhesive postage stamps. Since the business world found cheap postage a boon and since it proved ultimately a great financial success, it was imitated by almost every country in the world.

The inauguration of the penny post (the rate remained unchanged until 1918) was followed by a rapid extension of the scope of the postal services, beginning, in 1841, with the introduction of the registered post to ensure additional safety for valuable mail. In 1854 Rowland Hill became the permanent head of the Post Office, and it was during his term of office that the Post Office Savings Bank was established, in 1861, to meet the needs of the small investor. The money order system which had operated as a private venture from 1792 to 1838 was supplemented in 1881 by the issue of postal orders for fixed amounts. Letter-boxes had been instituted in London in 1855 to facilitate the increased postal traffic, and in 1883 the parcel post was introduced. By the end of the nineteenth century a regular delivery of letters was assured to every house in Britain.

The guiding principles of the postal services—speed, reliability and economy—have motivated all developments in the history of the Post Office. Improvements include the provision of motor mail van services[1] linking rural districts, postal sorting carriages on the railways, special mail trains on certain routes and the ingenious apparatus by which bags of mail are delivered and collected by trains running at express speed. During the second world war many of these facilities had to be curtailed and some were suspended, manpower shortage created a serious problem and oversea mails were disrupted.

Since 1945 the Post Office has restored and developed most of the pre-war services, and to the heavy task of reconstruction has been added a marked increase in the volume of mail. In the 16 years from 1938–39 to 1954–55 the parcel post increased from 185 million items to nearly 243 million, registered postal traffic from 62 million to 130 million and posted correspondence from 8,425 million to 9,500 million. Every day the Post Office handles some 25 million letters and parcels.

The minimum rates for letters sent by surface mails are: inland and Irish Republic, 2½d. for two ounces; British Commonwealth, territories under British Trusteeship, British Post Offices in Morocco and the Persian Gulf, Her Majesty's Forces overseas and Her Majesty's ships in foreign waters, and also Burma, Egypt, Israel, Jordan, United States of America, 2½d. for one ounce; other foreign countries, 4d. for one ounce. The inland parcel rate (from 1st January 1956) is 1s. 3d. for parcels weighing up to 2 lb. ranging to 2s. 9d. for 15 lb. The rates for parcels sent to the Irish Republic range from 1s. 3d. for parcels weighing up to 2 lb. to 2s. 11d. for 15 lb. The oversea parcel rates vary according to the destination.

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[1] In 1919 the Post Office inaugurated its motor transport with 48 vehicles; this fleet now numbers nearly 33,000, of which over 13,000 are motor postal vans.

There are lower rates for second-class mail (unsealed packets containing printed matter, newspapers, periodicals, commercial papers, samples and small consignments of merchandise).

Packages containing literature for the blind can be sent to destinations in the United Kingdom and Irish Republic at a nominal rate ranging from ½d. to 2½d. for the maximum weight of 15 lb. and to oversea destinations, by surface mail, post free.

Airmail Services

Railways and motors as a means of transport for mails are supplemented by steamers and aeroplanes. The figures for the year ended March 1955 show that total oversea civilian correspondence amounted to 408 million items and Forces' mail to 60 million, and that nearly 50 per cent of this traffic now travels by air. First-class mail to all European countries is sent by air or by surface transport, whichever offers the speedier delivery, without payment of any special air fee. The Post Office dispatches nearly 27 tons of letter mail a week to European destinations by this 'all-up' service mainly in aircraft of the British European Airways, whose network of services enables many of the letters posted in London for Europe to be delivered the following day. The air parcel service to Europe, introduced on 2nd April 1949, is now operating to 25 destinations,[1] and about 8 tons of parcel mail are dispatched weekly to Europe by air.

First-class mail and second-class mail are dispatched by air to countries outside Europe upon payment of special airmail rates of postage. The airmail postage rates for letters are 9d., 1s. 3d. and 1s. 6d. per ½ ounce, depending on the destination. Air parcel services are also available to some 98 countries outside Europe. Lightweight air letters costing 6d. each are popular and some 46 million were posted in the year ended March 1955.

Telegraphs

All private telegraph systems in Britain were transferred to the control of the Postmaster-General in 1870. Teleprinter working for the transmission of inland telegrams was introduced generally in 1928 and conversion to the present automatic switching system was completed in mid-1954. It is now one of the most up-to-date systems in the world and gives direct connection between any of the 500 larger telegraph offices. The Post Office accepted 26 million inland telegrams in 1954–55, and the average time between handing in an inland telegram and its receipt at the delivery office was 17 minutes compared with 48 minutes in 1946. In recent years inland telegraph traffic has decreased while the costs of running the service have increased. In 1954 the charges for inland telegrams were raised to 3s. for 12 words and 3d. for each additional word.

Telex

The Telex Service provides a quick means of communication in printed form between subscribers. The printed copy of the message is produced on teleprinters at both the sending and receiving subscribers' installations. Calls may be made to any telex subscriber in the United Kingdom and to subscribers in certain countries overseas, including parts of the United States of America. The service is available day and night, and messages may be transmitted to a subscriber even though his teleprinter is unattended. The message will then be available for attention when his office opens.

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[1] Spain and the Balearic Islands are considered as a single destination.

The United Kingdom is divided into 50 charging areas, each with its telex centre. The call charges are based on the distance (measured in a straight line) between the telex centres, the minimum charge being for a three-minute call. There were just over 2,000 subscribers at the end of June 1955, and the service is expanding rapidly. Calls are connected at telex exchanges staffed by experienced telegraphists, but it is likely that complete automatization of the service will be achieved within the next few years, when subscribers will be able to dial all calls within the United Kingdom and many oversea calls for themselves.

Inland and oversea telegrams may be sent to the Post Office by telex—no charge is made for the calls and normal charges apply for the telegram. Arrangements can also be made for incoming telegrams to be received by teleprinter.

Telephones

There are over 6,000 telephone exchanges in the United Kingdom; three-quarters of these have been converted to automatic working. During the year 1954–55 some 240 new automatic exchanges were opened for service. Some of these replaced smaller automatic exchanges of early and obsolete type which had outgrown their capacity. At many of the automatic exchanges callers can not only dial numbers in the same city or town but can also dial numbers in adjacent towns up to about 15 miles. Plans are being made for dialling over longer distances in the future, and experiments are being made with electronic switching systems which may eventually supersede the electro-mechanical system now in use. The total expenditure on telephone development, mainly new cables and new exchange equipment, has increased from £50 million in 1951 to £70 million in 1954 and by 1956 it is expected to reach £81 million.

During the year ended 31st March 1955, some 600,000 new telephones were provided for subscribers, bringing the total number of telephones at that date to 6½ million (double the 1939 figure). This total includes over 66,000 telephone call offices for public use. During the same period there was a net reduction of 5,000 in the number of people waiting for telephone service, bringing the total down to 371,000.

The level of telephone traffic continues to rise. In the year ended 31st March 1939 the total trunk calls amounted to 112 million, while in the year ended 31st March 1955 the Post Office handled a total of 306 million; of these 77 million were at the cheap night rate, which was instituted in 1934. To meet this increasing traffic about 12,000 trunk circuits over 25 miles in radial length have been provided since the end of the second world war, making a total of over 21,000 such circuits. The number of local calls handled during the year ended 31st March 1955 was 3,615 million, an increase of 70 per cent compared with the year 1938–39.

About 550 exchanges now operate the automatic time service, first introduced in 1936, by which callers in 48 cities and towns are able to obtain the correct time automatically by dialling the three-letter code TIM or a figure code which connects to the speaking clock at Holborn Exchange, London, or to a similar clock in Liverpool.

The total number of these calls made in London from the introduction of the service in July 1936 to September 1955 was 521,253,000.

The 999 emergency dialling service is available on about half of the 4,576 automatic exchanges now in service. Callers using this service are given priority of answer and are connected as quickly as possible to the police, ambulance or fire brigade, and in certain coastal districts to lifeboat and coastguard stations.

A telephone weather forecast service, operating within a 20-mile radius from London, is to be inaugurated early in 1956, and will later be extended to other areas.

Oversea Telecommunications

All the oversea telephone services from the United Kingdom have, for a great many years, been developed and operated by the Post Office. The oversea telegraph services, on the other hand, were shared until 1950 between the Post Office and Cable and Wireless Ltd. This company, which was brought into public ownership on 1st January 1947, had developed a large and valuable telegraph cable network (some 150,000 nautical miles of submarine cable) of world-wide extent, and a large number of radio circuits. It operated not only in the United Kingdom, but in most parts of the Commonwealth as well as in some foreign countries. Between 1947 and 1950 the Governments of the United Kingdom, Canada, Australia, New Zealand, South Africa, India and Southern Rhodesia took over the operation of the oversea telegraph services in their own countries, leaving the Company with its cable network and with the operation of the network in some Colonial and foreign territories. Thus the Post Office operates all oversea telecommunications from the United Kingdom.

The oversea telegraph, telex and telephone services are operated under the general title of *Post Office Cable and Wireless Services* and through five London stations having international circuits:

> *Telegraphs.* Most of the European telegraph services are worked from the Central Telegraph Office in St. Martin's-le-Grand, London, from which there are direct circuits to most European countries. The extra-European services together with some services to Europe are operated from Electra House, Victoria Embankment, London. In all, the Post Office transmitted 20 million telegrams to countries abroad and received a similar number for delivery in Britain in the year ended 31st March 1955.
>
> *Telex.* The International Telex Exchange, in the Central Telegraph Office, St. Martin's-le-Grand, provides a teleprinter service to 25 countries abroad. In November 1954 the separate international and inland services were amalgamated. In 1954–55 three-quarters of a million outgoing international calls were made.
>
> *Telephones.* Telephone service to European countries is through the Continental Exchange from which some 490 direct telephone circuits radiate to 18 continental countries. These circuits, over which calls can be connected to almost every country in Europe, are also used to send and receive pictures and to relay speech and music for broadcast transmissions. In 1954–55 over 1¾ million outgoing calls were made. Automatic dialling by operators to subscribers in certain European countries has been introduced on a small scale, and will be developed progressively. Extra-European services are connected through the International Radio Exchange over radio circuits which provide service with most countries outside Europe and with many of the larger liners at sea. The number of outgoing radio calls made in 1954–55 was 97,000.

Work is progressing on the first transatlantic telephone cable. This is jointly undertaken by the Post Office, the American Telephone and Telegraph Company, the Canadian Overseas Telecommunications Corporation and the Eastern Telephone and Telegraph Company of Canada, to improve and expand communications between the United Kingdom and the United States and Canada. It is expected to be completed by the end of 1956. The Post Office cable ship, H.M.T.S. *Monarch*, is laying the cable, most of which is being made in the United Kingdom. The first part of the operation—the laying of a single one-way circuit—was completed in September 1955.

The United Kingdom is a member of the International Telecommunications Union, which has its headquarters at Geneva and is the co-ordinating body for telecommunications throughout the world.

Ship-to-Shore Radio Communications

In addition to the radio stations for oversea telecommunications, the Post Office has 11 coast radio stations situated in the United Kingdom. These stations provide for radiotelegraph and radiotelephone communications with ships at sea at ranges up to 300 miles approximately. There is also a long-distance station at Burnham-on-Sea, which communicates with ships in all parts of the world.

These coast stations play an important part in the services concerned with safety of life at sea. They keep continuous watch on the international radiotelegraph and radiotelephone frequencies for distress calls from ships or aircraft and take immediate action, by radio and by advising the appropriate shore authorities, to obtain assistance for any vessel in distress. During the year ended 31st March 1955 the stations handled 272 cases of casualties to shipping and aircraft and dealt with 142 distress calls.

In addition to the services for safety of life at sea, the stations exchange radiotelegrams with ships, connect radiotelephone calls between telephone subscribers ashore and suitably equipped ships, broadcast navigational warnings and weather bulletins, and operate direction-finding services for ships. During the year ended 31st March 1955 the stations handled 882,000 radiotelegrams and 58,000 radiotelephone calls; they broadcast 1,780 navigational warnings and over 10,000 weather reports; and they gave 900 radio bearings to ships.

The stations also operate a free medical advice service whereby the Master of a ship may obtain advice on the treatment to be given in cases of sickness or injury aboard ship. In the year ended March 1955 the stations dealt with 500 medical messages in this service.

The Post Office Counter: Agency and Direct Services

Largely as a result of the extension of social legislation and the widening scope of the social services, the volume of work measured on a time basis at post office counters has increased considerably compared with the total for 1938–39. In the 16 years to 1954–55 the cash turnover increased from just over £1,000 million to £3,977 million.

At the post office counter the citizen can draw his pension and his family allowance, buy a licence for his gun, dog, sound radio or television receiving set (see p. 399), renew his car licence, buy stamps for National Insurance (see p. 323) or for National Savings certificates (see p. 290) and bank his savings. In these and many similar transactions the Post Office acts as an agent for other Government Departments. Of the 48 million postal drafts paid out by the Post Office in 1954–55, 34 million were in payment of sickness benefits under the National Insurance Scheme.

Counter sales include also an increasing volume of direct Post Office business: during the year ended 31st March 1955 about 605 million postal orders were issued by post offices, an increase of over 11 million on the previous year's record figure.

For over ninety years the Post Office Savings Bank (see p. 290) has supported the financial stability of Britain and the well-being of its citizens. Approximately one out of every two persons in Britain has a savings account or other holding with the Post Office, and active savings bank accounts numbered nearly 23 million in July 1955.

VII. LABOUR

MANPOWER

The total working population[1] of the United Kingdom at the end of June 1955 was just over 24¼ million, some 47 per cent of the total population, and included about 70 per cent of persons of normal working age (15 years to 59 years for women, 15 years to 64 years for men). In fact, about 95 per cent of British men of working age are today in or seeking gainful work. The remaining 5 per cent consist mainly of those continuing their education, of the severely disabled and of some persons of private means. The proportion of women of working age in or seeking gainful work is much lower, about 45 per cent, as many housewives have no wish to take employment outside the home, or if they have, are prevented by household duties from doing so. Besides those of normal working age, there are more than a million older men and women still at work. The great majority of the working population work for a wage or salary, but about 1¾ million are employers or self-employed.

The make-up of the working population has been affected during the century by decreases in both birth and death rates, the result of which has been that the proportion of both the total population and the working population over the age of 35 has increased considerably. Changes in social habits have also had their effect. The minimum working age has been raised to 15 years. The proportion of those over the normal working age who are occupied has declined (though the great increase in the number of older persons has meant that the actual number who are working has increased). The proportion of men aged 20 to 64 who are at work has remained high and fairly uniform. Among women, on the other hand, there has been a steady increase during the century in the proportions employed in the age groups 15 to 59, but this has been offset by the raising of the minimum working age and by a decrease in the proportion of women employed above the age of 59. There has been a considerable increase in the employment of married women during this century, most noticeably in the last twenty years.

The proportion of women at work is generally higher for single than for married women of the same age and for younger as compared with older women of the same marital status. Thus in 1951 only 16 per cent of married women aged 55 to 59 were at work compared with 37 per cent of married women aged 20 to 24. About one-half of the female labour force is under 35 years of age, though an increasing number of middle-aged women have recently been taking work, including part-time work.

The total working population is now higher than before the war, but probably lower than during the middle of hostilities when housewives, including mothers of young children, manned war factories at great personal inconvenience, while men served in the armed forces. From the end of the war until mid-1947 the size of the working population declined as women left industry. At the same time the expansion of the population of working age, a feature of the British economy for two centuries, slowed down, largely as a result of the low birth rates of the 1930s, and in the case of women it actually halted. Further, the raising of the school-leaving age in 1947 removed the 14 age group from the working population. However, after remaining fairly steady from mid-1948 to mid-1949, the total working population rose from mid-1949 to the end of 1951, if allowance is made for seasonal variations. Among the reasons for this rise were the continued increase in the number of men in the working age groups and the return of a number of women to part-time or whole-time work. The working population fell slightly between the end of 1951 and the end of 1952, but since then has continued its steady rise.

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[1] The total working population represents the estimated total number of persons aged 15 and over who work for pay or gain, or register themselves as available for such work. The total comprises the armed forces, men and women on release leave not yet in employment, all persons—employers and workers on their own account as well as employees—in civil employment (including persons temporarily laid off but still on the employers' payrolls) and wholly unemployed persons registered for employment. Part-time workers are counted as full units.

The broad changes in the manpower position in Great Britain between mid-1948 and mid-1955 are shown in Table 30.

TABLE 30

General Manpower Position (Great Britain)

Thousands

	End-June 1948	End-June 1954	End-June 1955
Total Working Population: (*a*)			
Men	*15,657*	*15,974*	*16,064*
Women	*7,123*	*7,693*	*7,811*
Total	22,780	23,667	23,875
HM Forces (including Women's Services):			
Men	*807*	*816*	*784*
Women	*39*	*23*	*19*
Total	846	839	803
Ex-Service men and women on release leave who have not yet taken up employment	92	6	6
Registered unemployed:			
Wholly unemployed	273	218	170
Temporarily stopped (*b*)	*9*	*12*	*22*
Number in civil employment:			
Men	*14,549*	*15,009*	*15,162*
Women	*7,020*	*7,595*	*7,734*
Total	21,569	22,604	22,896

Source: Ministry of Labour and National Service.

(*a*) See footnote, p. 252.

(*b*) The figures for the 'temporarily stopped' have been excluded from the computation of the total working population, as they are already included in civil employment.

Deployment of Labour

Nearly 45 per cent of those in civil employment are employed in the mining and manufacturing industries and only about 5 per cent in agriculture and fishing. Over half of those in manufacturing are in the metals, engineering, vehicles and chemicals groups of industries, in which the total labour force has approximately doubled in the last 20 years.

Most industries employ women as well as men, but there are jobs, such as underground work in coal mines, which are forbidden to women. The industrial groups in which women are chiefly employed are in the manufacture of textiles, clothing, and food, drink and tobacco, and in the distributive trades and professional and miscellaneous services.

An analysis of the total number in civil employment by broad industrial groups is given in Table 31.

The figures in Table 31 for the manufacturing and basic industries include those engaged on administrative and clerical work, so that the numbers engaged on productive processes are smaller than those given for the industries as a whole. The 1951 Census One Per Cent Sample Tables (see page 7) showed that less than

TABLE 31

ANALYSIS OF CIVIL EMPLOYMENT (Great Britain)

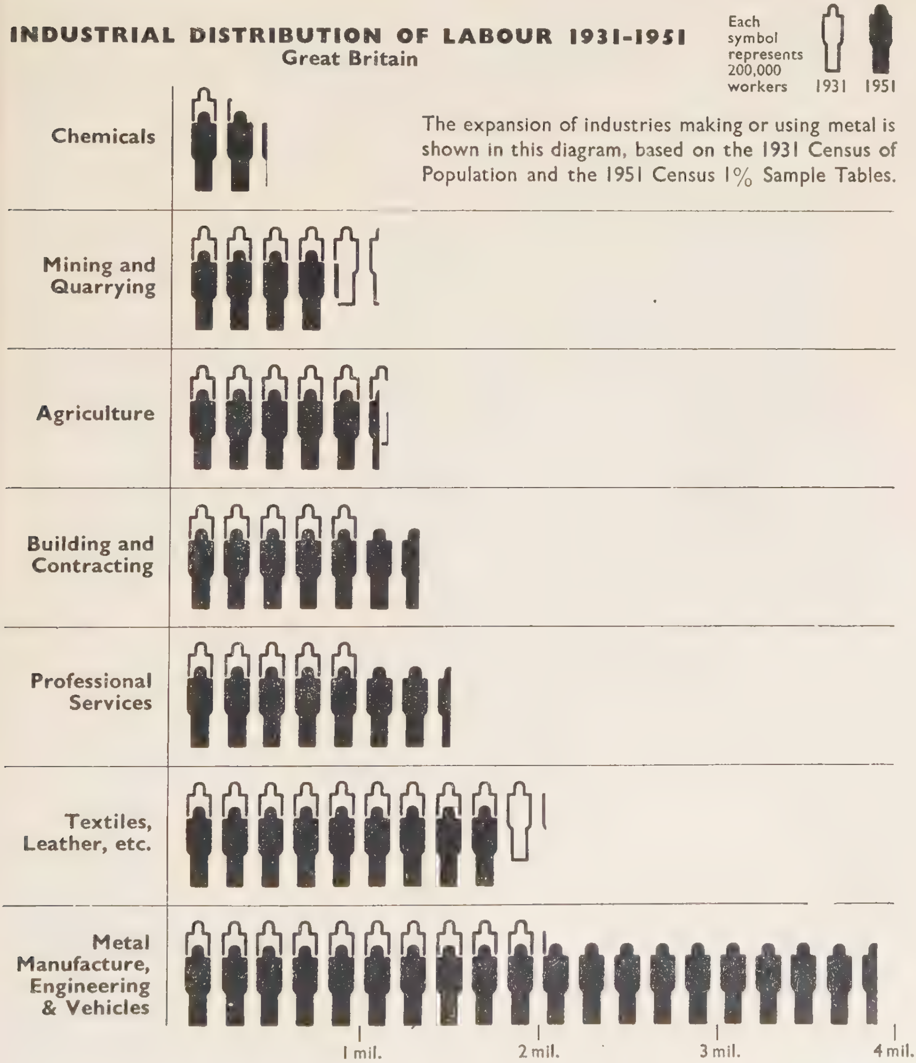
Thousands

Industry or Service	End-June 1948	End-June 1954	End-June 1955
Basic Industries:			
Coalmining (total manpower) ..	794	786	789
Other mining and quarrying ..	82	81	75
Gas, electricity and water	321	373	378
Transport and communications ..	1,787	1,715	1,714
Agriculture and fishing	1,178	1,074	1,052
Total, basic industries	4,162	4,029	4,008
Manufacturing Industries:			
Chemical and allied trades	441	502	515
Metals, engineering and vehicles ..	3,944	4,353	4,569
Textiles	931	994	962
Clothing	649	688	677
Food, drink and tobacco	750	887	910
Other manufactures	1,422	1,552	1,589
Total, manufacturing industries ..	8,137	8,976	9,222
Building and contracting	1,450	1,453	1,466
Distributive trades	2,484	2,743	2,793
Professional, financial and miscellaneous services	3,954	4,077	4,092
Public administration:			
National Government Service ..	682	594	580
Local Government Service	700	732	735
TOTAL IN CIVIL EMPLOYMENT ..	21,569	22,604	22,896

Source: Ministry of Labour and National Service.

a third of men at work and less than a quarter of women at work were employed in manual occupations in mining or manufacturing industry. On the other hand, there were in Great Britain at the time of the 1951 Census of Population over 1,400,000 women clerical workers (including typists), over 800,000 in retail trade, over one million women domestic workers or charwomen (including those in hotels, institutions and offices), 500,000 women in various other forms of personal service (including catering), nearly a quarter of a million nurses, and 220,000 women teachers.

In June 1955 the unemployed constituted one per cent of insured employees in Great Britain. Unemployment was mainly short-term. The total number of persons unemployed for more than six months in Great Britain was about 0·2 per cent of the number of insured employees. Three-quarters of these long-term unemployed were



INDUSTRIAL DISTRIBUTION OF LABOUR 1931-1951
Great Britain

The expansion of industries making or using metal is shown in this diagram, based on the 1931 Census of Population and the 1951 Census 1% Sample Tables.

men and women over 40 years of age, some 40 per cent of whom were concentrated in certain areas where unemployment had been especially severe between 1921 and 1939.

Unemployment in all areas has been very greatly reduced since the pre-war years, both because of changes in the general economic situation and because of specific measures taken by the Government to promote a balanced distribution of industry in order to prevent the recurrence of severe unemployment in the areas previously most seriously affected (see p. 129).

Considerable changes in the distribution of persons between various industries and occupations have taken place during the twentieth century. Some short-term changes were brought about by the two world wars and by the severe trade recession and unemployment of the inter-war years, but the following appear to be the main long-term trends:

1. A continuance at a decreasing rate of the decline in agricultural employment which was rapid at the end of the nineteenth century.
2. A general increase in administrative and clerical employment, including public administration, and a very large increase in the employment of women in clerical work, including typing.
3. A decline in employment in certain large old-established industries, notably coalmining and cotton textiles.
4. A very large increase in employment in the metals, engineering and vehicles group of industries and the chemicals group of industries. Employment in these industries approximately doubled between 1931 and 1951. Expansion has been most marked in those sections of the industries making relatively new types of products, e.g., cars, aircraft, electrical and electronic apparatus and plastics. The rate of increase in certain branches of these industries was accelerated during both world wars.
5. A decline in indoor private domestic service in which the number of women employed has fallen by about a million since 1900.
6. A considerable increase in the numbers employed in the distributive trades. This trend was reversed during both world wars—e.g., the number in the distributive trades fell by 930,000 during the last war, and although increasing is still below the 1939 level—but appears to be fairly continuous in time of peace.

Northern Ireland

The total working population of Northern Ireland—including employers and self-employed but excluding certain unpaid helpers—is about 550,000. The Government of Northern Ireland does not publish up-to-date monthly estimates of total working population but at end-May 1955 the number of male employees was 297,000 and of female employees 176,000. The industry with the largest number of employees is the linen industry; there are only some 20,000 employees in agriculture. Most agricultural work in Northern Ireland, however, is done by small farmers and their families without hired help and the total number of persons engaged in agriculture is over 150,000.

GOVERNMENT EMPLOYMENT AND TRAINING SERVICES

The provision of employment services in Great Britain has been one of the principal functions of the Ministry of Labour and National Service since its inception in 1916. Northern Ireland has its own legislation in these matters which embodies the main principles of the corresponding legislation in Great Britain, but owing to the much smaller area of administration and the less favourable employment situation, the facilities available are not so comprehensive in their scope as is the case in Great Britain, and administrative arrangements are in some respects on different lines. The responsible Department is the Ministry of Labour and National Insurance.

The following account, therefore, of services in Great Britain applies in general to Northern Ireland except where otherwise stated. The scope of the services in Great Britain has gradually been extended to include the provision of vocational guidance, and, in suitable cases, of vocational training. The Employment and Training Act, 1948, provided a permanent legislative basis for these wider services. The main services are provided through the country-wide network of some 1,200 local Employment and Branch Employment Offices. Local Employment Committees, composed of representatives of employers, workers and other local interests, are attached to most Employment Exchanges as advisory bodies to secure for the Department the full benefit of local knowledge and the close co-operation of employers and workers. In addition, an Appointments Service, intended to meet the needs of men and women who are qualified, or who are likely to qualify, for professional, administrative, managerial, senior executive and higher technical and scientific posts at home and overseas, is operated by the following offices in Great Britain staffed by officials of the Ministry of Labour and National Service:

1. The Technical and Scientific Register, kept centrally in London, which deals with professionally qualified scientists, engineers, architects and surveyors.
2. Regional Nursing Appointments Offices (11) and Nursing Appointments Offices (over 160), which deal with recruitment for training and employment in nursing, midwifery, radiography, physiotherapy, occupational therapy and medical laboratory technical work.
3. Appointments Offices (3) which deal with all other persons qualified for professional and higher technical posts; senior executives; ex-regular officers of the armed forces; and young men suitable for training for management in industry and commerce.

In normal times there is no compulsion on any job-seeker or on any employer requiring labour to use these Government services. Since 25th February 1952, however, a Statutory Order, the Notification of Vacancies Order, 1952, has obliged employers to recruit most types of ordinary labour through local offices of the Ministry of Labour and National Service or through employment agencies registered with the Ministry. The main object of this Order, which is flexible in its application and permits many personal and occupational exceptions, is to give employment officers every chance to persuade job-seekers to undertake work of national importance, e.g., in defence or in the basic industries. This Order does not give the Ministry any power to direct labour. The Order does not apply to Northern Ireland.

General Services for Adults

Local offices and offices of the Appointments Service accept on their registers both employed and unemployed persons seeking employment. Their primary function is to introduce suitable persons seeking employment to employers requiring employees, thus providing an efficient service to employers and job-seekers and meeting the needs of the national economy.

The appointments offices also operate a scheme for financing short business courses for suitable ex-regular Service men and women, and provide a Careers

Advice Service for suitably qualified men and women of 18 years of age and over on the choice of a career. This service is particularly valuable to young graduates and other suitable young men and women, including those who have just finished a period of service with the armed forces.

A special responsibility of the local offices is recruitment under the Vocational Training Schemes. Two of these schemes—that for the disabled and that for men and women who need this kind of help if they are to obtain suitable employment after a period of voluntary service in the regular armed forces—are directed to the resettlement of the individual and cover a comprehensive range of skilled trades from agriculture to watch and clock repair, from radio and television servicing to clerical work. Unemployed men and women have also been recruited for this wide range of trades in some circumstances. The third Vocational Training Scheme is directed to the filling of urgent vacancies in industries which are important to the national economy and which at the same time suffer from shortages of skilled labour. Any suitable man or woman without an employable skill is recruited under this scheme, which includes 20 to 30 skilled courses including agriculture, engineering and draughtsmanship.

Training under all these schemes is given mainly at Government Training Centres, of which there are 16 in different parts of Great Britain and, for some trades, in technical colleges or in an employer's establishment. Courses vary in length according to the occupation; most last for six months. Maintenance allowances are paid during training, and men and women with dependants receive higher rates. These maintenance allowances are higher than the rate for unemployment benefit. During the period from the beginning of the post-war training scheme on 2nd July 1945 to 13th June 1955 the number of trainees placed in employment was 121,021.

Training schemes for particular groups of crafts have been drawn up in consultation with representatives of employers and workers, who have agreed that trainees should be accepted in industry for work which makes full use of the knowledge acquired during the course. In trades where it is usual for the employee to provide his own tools he is given these free on taking up a job in his training trade. The job itself is found whenever possible by the Employment Exchange (local office).

The Ministry of Labour and National Service sponsors as a free service to industry the Training Within Industry for Supervisors scheme which gives training to supervisors in three essential skills, i.e. in instructing and passing on information, in leading and fostering harmonious working relationships, and in improving working methods. The Ministry is prepared to extend a measure of these services to oversea branches of British firms. It is prepared also to train suitable persons to develop the scheme in their own territories. The arrangements may be made by the Government of the country concerned or (where appropriate) by the International Labour Organization.

In recent years the Government, with the support of the representatives of employers' and workpeople's organizations, has followed a policy of encouraging the wider employment of older men and women. In October 1953 the National Advisory Committee on the Employment of Older Men and Women, appointed by the Minister of Labour and National Service to advise and assist him in this matter, presented its first Report (*Cmd.* 8963). This Report recommended that the following general principles should govern employers' engagement and retirement policy:

(1) that the test for engagement should be capacity and not age; and

(2) that all who can give effective service either in their normal work or in any alternative work that employers can provide, should have the opportunity to continue at work if they so wish. It also made recommendations for

overcoming some of the difficulties that might prevent these principles being applied.

The Report received widespread publicity and support, and employers are showing an increasing willingness to consider the older worker on his merits and to relax former rules and customs preventing the retention of their employees beyond a fixed age. The Government has also been adjusting its own engagement and retirement practices where necessary to bring them into line with this policy.

Services for Foreigners

Foreigners are admitted to the United Kingdom to take up employment with a particular employer, provided they are in possession of a permit issued to the prospective employer by the Ministry of Labour and National Service (the Ministry of Labour and National Insurance for Northern Ireland if the proposed employment is in Northern Ireland). Employment is limited to a maximum of one year in the first instance but may be extended on application by the employer. If a foreigner already landed in Great Britain, for example as a visitor, seeks to enter employment, his prospective employer must obtain prior approval from the Ministry of Labour and National Service. Approval is subject to the same conditions and requirements as are applied to the grant of permits to foreigners while still abroad.

The general conditions which must be satisfied before a permit is granted are: that the proposed employment of a foreigner is reasonable and necessary in the circumstances; that adequate efforts have been made by the employer to find suitable labour from among British subjects (or foreigners long resident in the United Kingdom); and that the wages and conditions of employment proposed for the foreigners are not less favourable than those commonly accorded to British employees for similar work in the district concerned.

In considering applications for permits, various other factors must be considered according to the nature of the proposed employment. Special arrangements have been applied to the admission of foreigners for nursing, teaching, various forms of entertainment, and in particular industries. In principle, permits for unskilled workers in industry are granted only in those industries which are particularly important to the national economy and where there is a general shortage of labour. To encourage visits and exchanges of young workers between Britain and other countries, applications from prospective employers for permits for student employees are granted freely under properly sponsored arrangements, organized mostly through unofficial channels.

A foreigner who has been allowed to take employment under a permit, or by the approval of the Ministry of Labour and National Service, may not change his employment, unless his prospective employer has obtained prior approval from the Ministry to employ the foreigner. From May 1946 to the end of 1954, 275,974 permits were granted, of which 169,754 were for resident domestic servants in hospitals, schools, other institutions and private households, and 24,317 for student employees.

The permit system applies to individual aliens. After the second world war, far greater numbers were being admitted under various group schemes organized by the Ministry of Labour and National Service.

There were two main group schemes for the employment of alien labour. The first was the Polish Resettlement Corps, established in 1946 to resettle those members of the Polish Forces who felt themselves unable to return to post-war Poland. Three years later, when the Corps was disbanded, practically all the 114,000 Poles who had been its members were re-settled. Of these, almost 100,000 had chosen to remain in the United Kingdom, many of them to be absorbed into the British building, agricultural and coalmining industries.

The second large-scale project for the introduction of foreign labour to this country was the European Volunteer Workers scheme. Workers came to Britain from the displaced persons camps of the three Western Zones of Germany and Austria, from Denmark, and finally from the towns and villages of Germany and Austria. By the end of 1949, 65,000 male volunteers had been placed in work, mainly in agriculture (35,000) and coalmining (11,000). By that time, those two industries had reached saturation point as far as foreign workers were concerned and no more men were recruited. When the recruitment of women ended in April 1951, 33,950 female volunteers had been settled in employment, mainly as domestic servants (13,300), textile workers (17,200) and nurses (2,200), but difficulties of absorption were being encountered. The most serious of these difficulties was the housing shortage, which had the effect of limiting the field from which the aliens could be selected, since it made it necessary that alien volunteers for work in the United Kingdom should be without dependants.

Youth Employment Service

The Ministry of Labour and National Service is also responsible in Great Britain for two specialized employment services: the Youth Employment Service and the Disablement Resettlement Service.

The purpose of the Youth Employment Service is to help young people leaving school and young workers under 18 to get a good start in their working life.

The service is under the general direction of the Central Youth Employment Executive, staffed by officers of the Ministry of Labour and National Service, the Ministry of Education and the Scottish Education Department. This joint executive is appointed by the Minister of Labour and National Service, who is responsible to Parliament for the Youth Employment Service as a whole. The Minister has appointed a National Youth Employment Council and separate Advisory Committees for Scotland and for Wales to advise him on questions relating to the service.

Locally the service is operated in most areas through Youth Employment Offices established by local education authorities (in Scotland by education authorities) in accordance with the schemes submitted by them to the Minister of Labour and National Service and approved by him. In those areas where such schemes are not in operation, the service is operated by the local office of the Ministry of Labour and National Service.

The main functions of the service are to collect and disseminate careers information, provide talks in schools, give vocational guidance, help to find suitable employment and keep contact with young workers to assist them in settling down. A further function is to assist employers in filling their vacancies for young people. Local Youth Employment Committees, made up of teachers, employers, workers and other appropriate interests, assist the service in an advisory capacity.

In Northern Ireland, the Youth Employment Service is operated by the Ministry of Labour and National Insurance; in addition local education authorities in some areas provide a Vocational Guidance Service. In these areas, there is close liaison between the Ministry and the authorities.

Disablement Resettlement Service

The Disabled Persons (Employment) Act, 1944, on which all the Ministry's work for disabled persons is based, declares that its purpose is 'to make further and better provision for enabling persons handicapped by disablement to secure employment or work on their own account', and the Disablement Resettlement Service is designed to help disabled persons to get and keep suitable work. The service is available to all persons over school-leaving age who are substantially handicapped as a result of injury, disease or congenital deformity.

The Ministry of Labour and National Service is responsible for the administration of the service. At each of its 1,200 local offices a Disablement Resettlement Officer, working under the direction of the Manager and in co-operation with other officers, has the special duty of advising and assisting disabled persons in obtaining suitable employment. This officer is in touch with all the hospitals in his area and visits any patient who wishes to discuss the question of future employment. His work involves close co-operation with doctors, local authorities and voluntary welfare agencies.

There is also a Disablement Resettlement Officer with similar functions at each of the three appointments offices.

The help given by the service falls under four main headings:

1. *Vocational Guidance.* This is given at local offices by Disablement Resettlement Officers in consultation, as necessary, with the local Disablement Advisory Committees or Medical Interviewing Committees, and also by vocational psychologists in the Industrial Rehabilitation Units (see paragraph 3).

2. *Placing in Ordinary Competitive Employment.* On the basis of a disabled person's qualifications and aptitudes and with medical guidance, the Disablement Resettlement Officer endeavours to find work most suitable for the individual, either immediately, or after a course of industrial rehabilitation or vocational training. To a limited extent this is facilitated by the main provision of the Disabled Persons Employment Act, 1944, namely, that all employers of more than 20 persons are bound by law to employ a quota (at present 3 per cent for almost all industries) of registered disabled persons. Registration is voluntary. The number of disabled persons registered was 825,359 at 18th July 1955 and of these 31,574 were considered to be capable of ordinary employment but were unemployed. This figure is estimated as about 3·9 per cent of the total number of registered disabled persons capable of ordinary competitive employment.

3. *Industrial Rehabilitation and Vocational Training.* Industrial rehabilitation is provided at residential and non-residential units run by the Ministry of Labour and National Service where physical and mental toning-up is given and, for those who need it, vocational guidance as to the best kind of employment to take up.[1]

There are vocational training facilities for the disabled at Government Training Centres, educational institutions and employers' establishments (see p. 258). For the more seriously disabled, however, there are special residential training colleges run by voluntary organizations with the financial assistance and technical help of the Ministry of Labour and National Service. There are also arrangements for the training of special categories of disabled persons such as the blind.

4. *Sheltered Employment.* Remploy Ltd., a non-profit-making public company, with no share capital, was established in Great Britain in accordance with the provisions of the Disabled Persons (Employment) Act, 1944. Its objects are to provide training and employment facilities for registered disabled persons who are unlikely to obtain work except under special conditions. Its powers are wide enough to cover the provision of special factories and workshops, hostel accommodation and facilities for home workers. The directors are appointed by the Minister of Labour and

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[1] For medical rehabilitation of the disabled, see p. 333. For an example of a business with its own rehabilitation scheme, see photograph facing p. 342.

National Service; funds for capital development and to meet operational costs are provided by loans and grants under the Ministry of Labour Vote. At 21st June 1955 Remploy Ltd. operated 90 factories and employed 6,196 severely disabled men and women, including 153 homeworkers.

Facilities for the employment of blind persons are provided by local authorities directly or through voluntary bodies, with the financial assistance of the Ministry of Labour and National Service. At end-June 1955 there were 69 workshops for the blind in which there were 333 blind persons in training and 3,847 in employment. The Ministry also helped to finance the provision of training or employment for 901 severely disabled sighted persons in 44 workshops provided by 35 voluntary undertakings or local authorities. Some 1,300 blind persons and 15 severely disabled sighted persons were also working at home under homeworkers' schemes.

TERMS OF EMPLOYMENT AND WORKING CONDITIONS

At the beginning of the nineteenth century industrial workers were without any legitimate means of defending their standards of living or of ameliorating their working conditions. The traditional methods of fixing wages had become obsolete, trade unions were regarded as criminal conspiracies, and there was no protective legislation setting minimum standards of safety, health and welfare in places of work.

The first attempt at protective legislation was the Health and Morals of Apprentices Act, 1802, but the first effective Factory Act was that of 1833 which created an inspectorate employed and paid by the central Government to enforce its provisions. Since that date, legislation extending, strengthening, adapting and consolidating the statutory protection for employees has been passed at an accelerating rate. The progress in standards has owed much to the recommendations of strengthened inspectorates, much to the example of progressive employers and much to the persistent pressure of trade unions and disinterested reformers.

Trade unions ceased to be actionable conspiracies in 1824 but their status as legal entities was not properly established until 1871. This latter step had been made acceptable to public opinion by the leaders of certain craft unions, who had abandoned the revolutionary and financially unsound policies of earlier trade unions to pursue a limited practical objective, i.e. the improvement of their members' wages and conditions through skilful and honest negotiation from positions of financial strength.

After 1880 the organization of unskilled workers became more extensive and effective and the whole tone of trade unionism became more militant and political. As many employers were still hostile to trade unionism and were unwilling to negotiate with trade unions or to recognize agreements made on an industry-wide basis, many of the first 30 years of the twentieth century were marked by widespread and prolonged strikes. Since 1932, however, the strike rate (in terms of man-days lost) has been very much lower, and arrangements for the negotiation of terms of service and the peaceful settlement of disputes have become general and are on the whole satisfactory.

Today, minimum standards have been established by statute or collective agreement for both the terms and conditions of employment and the working conditions of the substantial majority of British workers. The fixing of terms and conditions of employment, however, involves principles, methods and machinery quite different from those for the determination of working conditions. Terms and conditions of employment of the majority of workers are determined by collective agreements between employers' associations and trade unions, and the fixing by statute of minimum wages and terms of employment is confined to those trades or industries where the organization of employers or workers or both is inadequate to negotiate collective agreements and to ensure their observance.

Minimum standards for working conditions, on the other hand, are laid down by statute, e.g., the Factories Acts, 1937 and 1948, and it is the duty of Government and Local Authority Inspectors to enforce their provisions. The various Acts of Parliament and statutory regulations made thereunder prescribe minimum standards of safety, health and welfare for a large proportion of workers, and regulate the hours of work for women and young persons. Health, safety or welfare requirements, additional to these minimum statutory requirements, have, in some cases, been the subject of collective agreement.

Many employers provide working conditions superior to those prescribed by statute or agreement, and various voluntary bodies advise and assist in improving these standards.

LABOUR RELATIONS

The structure of labour relations in Britain is established mainly on a voluntary basis, and rests on the organization of employers and workers into employers' associations and trade unions. These organizations[1] discuss and negotiate terms and conditions of employment and other matters affecting the workpeople at their work. In some cases these negotiations are conducted simply by *ad hoc* meetings, which are held when necessary; in other cases voluntary joint machinery has been established on a permanent basis. Normally these arrangements suffice to settle all questions which are raised, but provision is often made for matters not so settled to be referred for settlement to independent arbitration. In certain trades where the voluntary organization of employers and workers is not adequate for the effective regulation of the workers' remuneration, provision has also been made by the State for statutory regulation under the Wages Councils Acts, 1945 to 1948, the Catering Wages Act, 1943, the Agricultural Wages Act, 1948, and the Agricultural Wages (Scotland) Act, 1949.

Employers' Organizations

Many employers in Great Britain are members of employers' associations, some of which have their origins in the nineteenth century. They are generally organized on an 'industry basis'—some being purely local in character and dealing with a section of an industry only, while others have a national scope and concern themselves with the whole of an industry. In some cases the local associations are organized into district or national federations.

The central organ of employers' associations is the *British Employers' Confederation*, to which the majority of employers' associations and federations in the principal industries are affiliated. It deals with matters affecting the interests of organized employers in their relations with their workpeople, and is recognized by the Government as the principal channel of consultation between Government Departments and representatives of organized employers as a whole on all such matters.

The Confederation acts as an advisory and consultative body for its member organizations, providing them with information and statistics, ascertaining and acting upon their collective views and representing these nationally to the Government and to the public, and also internationally, for example, to the International Labour Organization.

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[1] The few monopolist employers—the central Government and the public corporations operating the nationalized industries—negotiate with the trade unions representing their different types of employees.

While the main function of employers' organizations consists in the safeguarding of the interests of their members, a number consider that this purpose can be furthered by the provision of advice and assistance to member firms and by such special services as the organization of general training courses and special courses on, for example, work study and its application. Where employers' organizations do not themselves provide such services they make arrangements for putting their members in touch with the appropriate specialist agency.

Trade Unions

In nearly all industries and occupations some workers—and in some industries nearly all workers—are organized into trade unions. These have grown up gradually and independently over a great many years, and consequently their form and organization vary considerably. Trade unions started more than two hundred years ago among the skilled craftsmen and spread later to the general labouring and unskilled classes. More recently trade unionism has increased among clerical, supervisory, technical and administrative workers.

The qualification for membership of some unions is occupational, e.g., they may recruit clerks or fitters wherever employed, while in others the qualification is industrial, i.e. they seek to recruit all persons in an industry, whatever their occupation. In a number of unions recruitment is based on a combination of these principles. A few large unions recruit members in a number of different occupations and industries.

At the end of 1954 the total membership of British trade unions was about 9,495,000. There were 674 separate trade unions, but about two-thirds of all trade unionists were in the 17 largest unions.

The basic unit of organization in most British trade unions is the local branch or lodge. Every member of the union belongs to a branch or lodge. He may attend its meetings, put forward suggestions about terms and conditions of employment, discuss the work and policy of the union, and take part in the election of branch officers. The branch takes action on certain matters considered purely or mainly of local interest but refers wider issues to the union's national or regional bodies.

Many unions also have shop stewards or other representatives at the place of work to enrol members and collect dues, to report any encroachment on agreed or customary conditions of work and in some cases to act as representatives of members at their place of work for the settlement of grievances.

In most large unions the central organization is along the following lines. Elected officials, including a General Secretary assisted by clerical and specialist staff, are in charge of the work of head office and are responsible to a National Executive Council or Committee which may be part- or full-time, and which is usually elected by, and responsible to, annual or biennial conferences of delegates from the branches.

Executive committees or councils play an important part in the government of the unions; between conferences they are the highest authorities and carry out policy decisions made by delegates.

Most unions also have some kind of regional, district or area organization, while in large unions there is usually also a system of regional, district or area committees or councils.

Trade unions may affiliate to one or more federations or confederations whose main purpose in most cases is to represent all or most of the trade unions in an industry in negotiation with employers. The scope and authority of these federations and confederations vary greatly in different circumstances.

All the trade unions of any size or importance except the National Union of Teachers, the National Association of Local Government Officers and certain civil service staff associations are affiliated to the *Trades Union Congress* (TUC), the national centre of the British trade union movement. The objects of the TUC are to promote the interests of all its affiliated organizations and generally to improve the economic and social conditions of the workers. Its membership comprises 183 organizations, of which 12 are federations of some 180 separate unions, so that some 350 unions in all are affiliated directly or indirectly. These represent over 8 million workpeople. The TUC deals with all general questions which concern trade unions both nationally and internationally and gives assistance on questions relating to particular trades or industries at the request of the trade union concerned. The congress of delegates, which constitutes the TUC proper, meets for a week every year to discuss matters of general interest to trade unionists and to employees generally. The General Council, elected annually, represents the TUC between congresses. A large part of its work consists of acting as a spokesman for British trade unionists on matters affecting their general interests, of co-ordinating trade union activities and determining disagreements between trade unions, of providing a number of educational and other common services and of preparing a report and agenda for the annual congress.

Both the TUC and a number of affiliated trade unions have in recent years paid increasing attention to the education of their members not only in general economic questions and trade union practice but also in production subjects including work study and costing, which had not hitherto been thought to concern trade unions. The TUC itself holds regular one-week courses on production and management subjects and on industrial relations, as well as a two-week course on trade union subjects. It also organizes week-end schools and summer schools. These are open to members of any affiliated union, usually by nomination from the union. A number of the larger unions hold similar courses. In addition, arrangements are made for union officials to attend courses on production questions at technical colleges. Some unions also make use of industrial consultants for this purpose.

The Trades Union Congress is recognized by the Government as the principal channel of consultation between the Government Departments and representatives of organized workers on matters affecting the interests of employees generally.

There is also a separate Scottish Trades Union Congress, to which trade unions may affiliate in respect of their membership in Scotland.

Branches of various trade unions in a locality often voluntarily affiliate to a local trades council, which acts as a forum for the discussion of matters of common interest and as local agent of the Trades Union Congress, by which it is annually registered. There are about 530 trades councils in England and Wales alone, grouped together in 22 federations.

Voluntary Joint Negotiating Machinery

At National Level. While in some industries all matters affecting terms and conditions of employment are discussed on an *ad hoc* basis between the employers' organizations and the trade unions concerned, in other industries there are standard procedures for dealing with such matters by joint discussion at a national level. In many industries there are, for this purpose, bodies composed of representatives of both sides of the industry with, in some cases, an independent chairman. Some are known as Joint Industrial Councils, of which there are over 140. The functions of these bodies vary considerably, some being simply negotiating bodies, while others deal with a wide range of subjects affecting the interests of the industry concerned. Provision is sometimes made in the constitution of such bodies that, where it is not found possible to reach agreed terms of settlement in a particular dispute, the matter should be referred to some form of conciliation or arbitration by independent persons, including the methods provided under the Conciliation Act, 1896, or the Industrial Courts Act, 1919 (see below).

At District and Factory Level. Similar arrangements exist at district and factory level in many industries, where matters are discussed either between the appropriate representatives of the two sides on an *ad hoc* basis, or through regular machinery provided by District Joint Industrial Councils or similar bodies and Works Councils (see p. 268). Such bodies discuss how agreements reached at a national level may be applied to their district or factory, but as a rule have no power to alter the terms of such national agreements. They also discuss new problems which may arise, and if no solution can be found at factory or district level the matter may be referred to the national body.

Statutory Wage-Regulating Machinery

In certain industries in which, owing to the lack of organization among employers and workers, voluntary negotiating arrangements do not exist for the effective settlement of terms and conditions of employment or are inadequate to secure their observance by voluntary methods throughout the industry, statutory bodies known as Wages Councils, Catering Wages Boards and Agricultural Wages Boards have been set up. These are composed of equal numbers of representatives of employers and workers in the respective industries, with the addition of certain independent members. Wages Councils and Catering Wages Boards are empowered to submit proposals for the fixing of minimum remuneration and of holidays with pay to the Minister of Labour and National Service, who is then required by the Acts concerned to make Orders giving statutory force to such proposals, subject only to his right to return them to the Board or Council for further consideration.

Orders relative to employment in agriculture are made by the appropriate Agricultural Wages Board (England and Wales or Scotland). Such Orders are effective only in the County Agricultural Wages Committee area in respect of which they have been made, but there is a national minimum enforceable in England and Wales and also one for Scotland.

State Provision for Conciliation, Arbitration and Investigation

Matters which prove difficult to settle by negotiation are sometimes referred by agreement to independent conciliators or arbitrators, and one way in which the parties can find such persons is by invoking the help of the Minister of Labour and National Service. Under authority derived from the Conciliation Act, 1896, and the Industrial Courts Act, 1919, the Minister has certain powers to assist industry to settle disputes which it is not found possible to resolve through an industry's own machinery and procedure. These powers are all intended to supplement and not to supersede the industry's own machinery.

To assist conciliation in industry, a staff of conciliation officers forms part of the Ministry of Labour and National Service. The duties of these officers are to keep in touch with the course of relations between employers and workers at national, district, and, in some cases, factory level, and to assist them, if requested, to settle their problems by joint discussion and negotiation.

Disputes which cannot be settled in this way may, at the request of both parties, be referred to voluntary arbitration, either by a single arbitrator, or an *ad hoc*

Board of Arbitration, or by the *Industrial Court*, a permanent tribunal established under the Industrial Courts Act. The Court is normally constituted of three members—the President, one member representing employers and one representing workpeople. At present, provision is also made by an Order under emergency legislation for disputes and 'issues'[1] about terms and conditions of employment, to be reported to the Minister in certain circumstances by one of the parties, and to be referred, if all other means of settlement have been exhausted, to an *Industrial Disputes Tribunal*, whose award can be legally enforced. This tribunal consists of a chairman and two other independent members appointed by the Minister of Labour and National Service, together with one member representing employers and one representing workpeople. These representatives are drawn from panels appointed by the Minister after consultation with the British Employers' Confederation and the Trades Union Congress respectively.

The Minister is also empowered to appoint a Court of Inquiry or Committee of Investigation into a dispute, whether existing or apprehended. These procedures are primarily means of informing public opinion of the facts of a dispute and not means of arbitration. The report of a Court of Inquiry has to be laid before Parliament. Although the recommendations contained in the reports of such bodies are not binding on the parties, they usually provide the basis of a settlement of the difference.

The machinery for negotiation and conciliation of disputes has reduced the need for direct industrial action, i.e. strikes and lock-outs. Time lost by stoppages of work caused by industrial disputes has been substantially less in the last twenty years than formerly. The average time lost in the 22 years 1933–54 was 1·9 million man-days or about a tenth of a day per worker per year compared with an average of 21 million man-days in the 23 years 1910–32. The reduction has been in the size and duration of strikes and not in their number. Small local strikes without the backing of a trade union headquarters have been relatively frequent.

In 1955 strikes in coalmines, rail transport and docks involved the loss of more man-days than in any year since 1944, though far fewer than in many earlier years. In consequence, Government, employers' associations and trade unions have been considering and discussing the possibility of further arrangements to facilitate the peaceful settlement of disputes.

Liaison between the Government and Industry

As will be seen from the foregoing paragraphs the Government is in contact with representatives of employers and workers at all levels on matters affecting their common interests. At local and district level the conciliation officers of the Ministry of Labour and National Service keep in touch with the representatives of both sides of industry, while at national level officers of the Department attend the meetings of many Joint Industrial Councils as liaison officers. Standing arrangements also exist for consultation between the Government, the British Employers' Confederation and the Trades Union Congress through the *National Joint Advisory Council*, which was set up in 1939 to advise the Government on matters in which employers and workers have a common interest. It meets quarterly under the chairmanship of the Minister of Labour and National Service. Its membership consists of representatives of the British Employers' Confederation and the Trades Union Congress, together with representatives of the managements of nationalized industries. Among the subjects which it has considered in recent years are the machinery for settling industrial disputes, joint consultation in industry, industrial training and recruitment, double day shiftworking, and the economic situation with special reference to production, wages and prices.

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[1] A dispute concerns the terms of employment or conditions of labour of workmen. An issue concerns the observance by an employer of the 'recognized terms and conditions' in his trade or industry.

In July 1955 the NJAC, in view of strikes earlier in the year, considered the whole problem of industrial relations and of further possible improvements in procedures aimed at minimizing stoppages. There was general agreement that legislative action was not appropriate and the matter was referred to the Joint Consultative Committee of the NJAC for further consideration.

Joint Consultation in Industry at Factory Level

In addition to the arrangements already described, the purpose of which is mainly but not exclusively for discussion and settlement of terms and conditions of employment, there are, in many industries, national agreements which recommend the establishment, in firms of sufficient size, of machinery for joint consultation between management and workers on problems of common interest. In some industries the constitution and functions of Works Councils are laid down in the agreement, while in others model constitutions are made available. In other industries, where no national agreement on the subject has been reached, the practice of joint consultation in the factory is becoming increasingly widespread.

The range of subjects which Works Councils can fruitfully discuss is wide and includes hours of work (within the framework of agreements), safety, efficiency of production, absenteeism, labour turnover, training, education, recreation and employees' services generally. The constitution and functions of these bodies vary widely from one firm to another. It is the general practice, however, to exclude from their scope all questions relating to wages and conditions of employment, and other matters covered by negotiation between organizations of employers and workers. It is the policy of the Government to foster the development of voluntary joint consultation throughout industry, not only because of its effect on production but also as a most important means of maintaining good relationships between management and employees.

At individual factory level, Personnel Management Advisers of the Ministry of Labour and National Service are often approached by firms seeking advice on the establishment of Works Councils or on ways in which their activities can be made more effective.

Labour Relations of Public Authorities

The above broad description of labour-management relations in industries where employers and employees are strongly organized applies in general to the public as well as to the private sector. There are, however, some special features both in the public service and in the nationalized industries.

Non-industrial employees in central Government service, where salaries and conditions of service are under the direct control of the Treasury, are permitted and encouraged to join the appropriate Civil Service staff associations (trade unions) and there is a highly developed system of negotiation and joint consultation by means of the National and Departmental Whitley Councils[1] (see pp. 61–62), corresponding to the Joint Industrial Councils in industry. The two sides of the National Whitley Council are parties to a Civil Service Arbitration Agreement which provides that, subject to certain limitations, if there is failure to reach agreement by negotiation a Department or Association may report the dispute to the Minister of Labour and National Service for reference to the Civil Service Arbitration Tribunal. The Tribunal is an independent one appointed by the Minister by virtue of his powers under the Industrial Courts Act, 1919. Industrial employees of the central Government are organized by trades and not by Departments. Negotiations regarding their wages and conditions of employment take place on Trade Joint Councils and Departmental Joint Councils.

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[1] Named after Mr. J. H. Whitley, former Speaker of the House of Commons and chairman of a committee which investigated industrial unrest from 1916 to 1919.

In local government services there are separate National Whitley Councils for the main grades of employees (e.g., manual, clerical and technical employees, and road-menders, see p. 68) which deal with wages and conditions of service as well as other matters. There are corresponding Regional and District Councils.

In the nationalized industries the main corporations, though not subject to detailed governmental control, have a statutory duty to establish satisfactory arrangements for collective bargaining in their industries and for joint consultation with their employees; but in carrying out these duties they are free to choose the arrangements that suit them. In nearly every case a complex system already existed before nationalization and has been taken over and modified. The arrangements, therefore, as in industry generally, vary substantially. The main difference from private industry is that the corporations are not members of employers' associations. In some industries they are sole or main employers, but even where part of the industry is in private hands, as for example in air or road transport, the corporations are separately and directly represented on wage-negotiating bodies.

Northern Ireland

The system of labour relations in Northern Ireland is based on the same principles as that of Great Britain and, in these matters, the Minister of Labour and National Insurance has powers and duties broadly similar to those of the Minister of Labour and National Service in Great Britain. About 90 per cent of trade unionists in Northern Ireland are members of trade unions whose headquarters are in Great Britain.

WORKING CONDITIONS: THE LEGISLATIVE BACKGROUND

Protective legislation in mines and quarries, factories, building and civil engineering, docks, wharves, and industrial workplaces generally is detailed and comprehensive and its enforcement strict, and a certain amount of protective legislation also exists in respect of non-industrial occupations.

The Government has accepted in principle recommendations made in 1949 by a committee under the chairmanship of Sir Ernest Gowers for extending to non-industrial occupations safety, health and welfare requirements similar to those for factories; and has announced its intention of introducing the necessary legislation as soon as Parliamentary time can be found for it.

Local authorities have power to regulate the provision of suitable sanitary conveniences in houses and at places of work and to treat workplaces which are dirty or dangerously ill-ventilated or overcrowded as nuisances whose abatement can be enforced. They have also wide powers to regulate hours and conditions of employment of children in their areas within the limits laid down by national legislation. The general effect of the national legislation is to forbid the employment of children under 13 years of age, to forbid the employment of children between the ages of 13 and 15 during school hours, or between 8 p.m. and 6 a.m. on any day, or for more than two hours before or after school or on Sundays. The employment of children in any industrial undertaking before they reach the age of 15 is prohibited.

The Shops Act, 1950, consolidating earlier Shops Acts, empowers local authorities to ensure that all shops in their areas have proper ventilation, temperature, lighting, sanitary and washing facilities, and that they observe the requirements of the Act with regard to closing hours, meal intervals and holidays.

Certain industrial premises, e.g., factories, shipyards and docks, come under the Factories Acts, 1937 and 1948, which are administered by the Ministry of Labour and National Service and enforced by Her Majesty's Factory Inspectorate, which is part of the Ministry.

The Acts lay down general requirements with regard to safety, such as the fencing and proper maintenance of machinery, lifting appliances and steam boilers and other pressure vessels; sound construction and proper maintenance of floors, passages and stairs, safe means of access to workplaces and means of escape in case of fire; and the prevention of escape of dangerous fumes and dust into the workroom. They also lay down general requirements with regard to health and welfare, e.g., with regard to cleanliness, the provision of sanitary accommodation, cubic space per worker, temperature, ventilation, lighting, washing facilities, accommodation for outdoor clothing, drinking water, first aid and provision of seats.

Any person intending to use premises as a factory has to notify the Inspector of Factories of his intention not less than one month before he begins to occupy them. All young persons under 18 years of age must be medically examined by doctors appointed by the Chief Inspector of Factories on entry to employment in factories, docks, or on building operations, and must be re-examined annually. The hours permissible to be worked by women and young persons between the ages of 16 and 18 are limited to 48 in a week and 9 in a day, although some overtime is allowed (up to six hours a week for not more than 100 hours a year nor in more than 25 weeks in a year). Young persons under 16 years of age are limited to 44 hours a week. Adequate intervals for meals must be arranged for women and young persons and the employment of women and girls by night is, in general, prohibited.

These general requirements for safety, health and welfare are supplemented or modified by regulations providing safeguards against special risks or conditions in particular industries, processes, establishments or machines.

The safety, health and welfare of workers in mines and quarries are the subject of comprehensive legislation. Protective legislation in mines began with an Act of 1842, which forbade the employment of women underground, and successive measures since then laid down detailed requirement for the safe conduct of operations and dealt with such matters as ventilation, dust suppression, rescue work, first aid and the initial medical examination of certain new entrants by official doctors. The latest stage was reached, when the Mines and Quarries Act was passed in 1954. This Act establishes the basic modern principles of safety, health and welfare, leaving the details to be dealt with in statutory regulations; it both consolidates the previous law and brings it up to date. Apart from technical matters, it also covers such subjects as the general responsibilities of owners and managements, the appointment and duties of officials, training, welfare, the powers of official inspectors, statutory qualifications of managers and under-managers, employment of women and young persons, and inspections on behalf of workmen.

The Ministry of Fuel and Power is generally responsible for the administration of these enactments, while the Mines and Quarries Inspectorate, which is part of that Ministry, is directly responsible for their enforcement.

In agriculture, special attention has been paid to the protection of workers against risks of poisoning, due to the use of toxic chemicals, and the Agricultural (Poisonous Substances) Act, 1952 imposed necessary safeguards. Further legislation is contemplated for agriculture and forestry which will deal with such matters as the fencing of dangerous machines, the provision of sanitary facilities, and first aid.

The Young Persons (Employment) Act, 1938, extended the restrictions on the hours of work of young persons to certain occupations not covered by the Factories Acts, the Mines and Quarries Acts, or Shops Acts. The proportion of young workers whose hours were subject to statutory limitation was estimated in 1947 to be about 65 per cent.

The safety, health and welfare of employees in Northern Ireland have been the subject of legislation similar to that in Great Britain but embodied in separate statutes to meet the special requirements of Northern Ireland. Provision for the safety, health and welfare of workers in factories, workshops, ship and building yards and certain other working premises is embodied in the Factories Acts (Northern Ireland), 1939 and 1949. The Minister of Labour and National Insurance is responsible for the administration of these Acts and for their enforcement by a Factory Inspectorate, forming part of his Department.

WORKING CONDITIONS IN PRACTICE

Earnings

Standard minimum time rates for British manual workers vary mainly between 2s. 9d. and 4s. an hour for men, and between 1s. 9d. and 2s. 9d. for women. These basic time rates are not, however, an accurate guide to average earnings. Higher time rates are sometimes paid, and piece rates, shift rates and overtime rates raise the level of average earnings. The Ministry of Labour and National Service conducts a six-monthly survey of earnings and hours of work in some of the principal British industries. The survey for April 1955 covered about 7 million workers and showed the average hourly earnings in all the industries covered to be as follows:

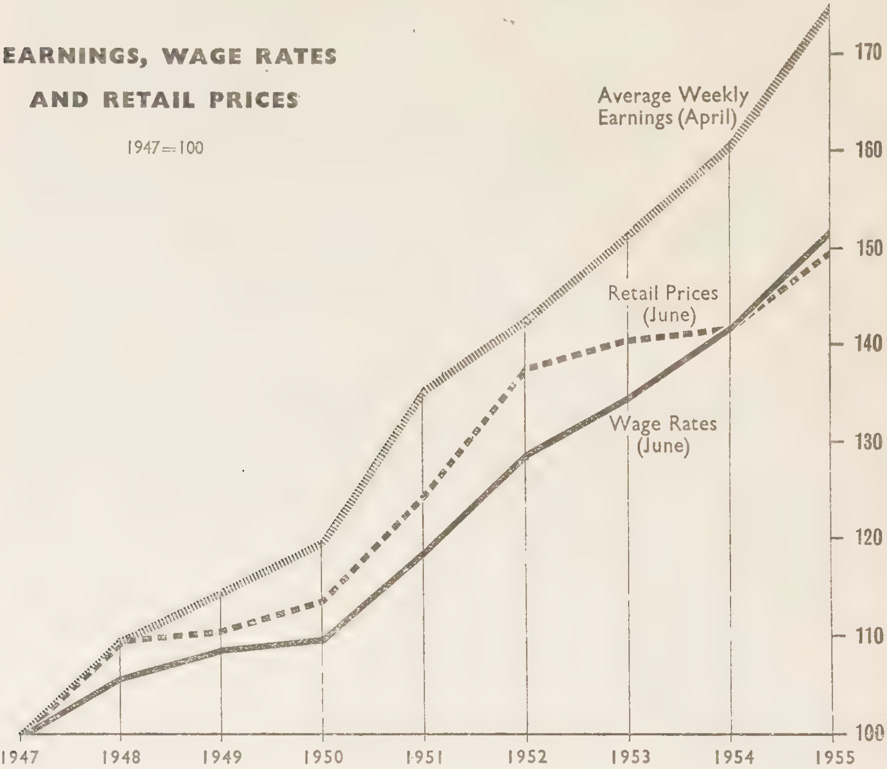
Men 21 years and over	4s. 5·4d.
Youths and boys under 21 years	2s. 0·2d.
Women 18 years and over	2s. 8·2d.
Girls under 18 years	1s. 8·1d.
All workers	3s. 10·6d.

Average weekly earnings were:

Men	217s. 5d.
Youths	90s. 11d.
Women	112s. 5d.
Girls	71s. 6d.
All workers	182s. 3d.

The principal industries not covered by this survey were agriculture, where the average weekly earnings for regular adult male workers were 150s. 9½d. in the year April 1954 to March 1955; coalmining, where, according to information collected by the National Coal Board, the average weekly cash earnings for men were 266s. 8d. plus 12s. 8d. in kind, in May 1955; railway services, in which average weekly earnings in March 1955 (including those of non-manual workers but excluding those of higher paid salaried staff) were 207s. 6d. for men and 125s. 6d. for women; and dock labour, in which average weekly earnings of dock workers employed by the National Dock Labour Board for April to June 1955 were 246s.

The difference between men's and women's earnings in industry is due mainly to the fact that women are for the most part engaged on different tasks from men and are paid less than men on the grounds that these tasks are unskilled or semi-skilled. Where a few women are employed in a preponderantly male occupation, they sometimes receive the same rates as men.



There are no similarly detailed and comprehensive figures for the rates of pay and earnings of non-manual workers, as these are often based on individual contracts, except in the public service, teaching and retail distribution. The rather limited evidence suggests that the majority of male non-manual workers—the clerks and shop-assistants—have average earnings little different in range from those of manual workers, but the earnings of women in these occupations are somewhat higher than in manual occupations. The pay of shop-assistants is on scales prescribing weekly minima of from about £5 15s. to £7 for men and about £4 to £5 for women. The Office Management Association makes periodical surveys of clerical salaries. The latest survey (1st March 1954) which covers 831 establishments employing 70,537 workers, shows that the average weekly salaries for young inexperienced clerks ranged mainly from 50s. to 65s. for youths and from 45s. to 60s. for girls, while average salaries for adult male clerks ranged from £7 for the lowest grade of skill and responsibility to £12 for the highest. Corresponding women's salaries were about 28 per cent less.

The starting salaries in many professional and technical careers are often in the range of £350 to £500 a year; such posts offer increments and opportunities for promotion, but as recently as 1949–50 only about one per cent of all employees were earning over £1,000 a year, only about ½ per cent over £2,000 and less than 0·1 per cent over £5,000. More recent information about the spread of incomes in different occupations is available from an unofficial source, a sample survey of personal incomes and savings by H. F. Lydall. Table 32 is based on this source.

TABLE 32

INCOME FROM EMPLOYMENT BY OCCUPATION (*a*)

percentage distributions

Employment income of income unit(*b*)	Occupation of head of income unit						All income units
	Self-employed	Managers and technical	Clerical and sales	Skilled manual	Un-skilled manual	Retired and un-occupied	
Nil	62	—	—	—	—	69	19·0
£1–£99	8	*	3	1	7	13	5·2
£100–£199	19	*	17	6	14	10	10·1
£200–£299	5	2	18	13	25	5	12·7
£300–£399	2	4	23	29	32	1	19·5
£400–£499	1	9	16	25	12	1	13·8
£500–£599	1	14	11	14	6	*	8·4
£600–£699	*	15	4	7	3	—	4·5
£700–£799	1	17	4	3	1	*	2·6
£800–£999	*	15	2	2	*	*	2·1
£1,000–£1,499	—	11	2	*	—	1	1·2
£1,500–£1,999	—	7	—	—	—	—	0·5
£2,000 and over	*	6	—	—	—	—	0·4
TOTAL ..	100	100	100	100	100	100	100·0
Number in sample ..	230	259	330	807	388	571	2,598
Average income:							
Arithmetic mean (in £s) of those employed ..	202	933	383	420	315	168	404
Standard deviation (in £s)	206	934	220	159	149	204	351

(*a*) Employment income includes income from wages, salaries, pensions from employers, casual earnings of non-professional workers, bonuses, tips, etc.

(*b*) The income unit is defined as follows: (1) all single persons of 18 or over, whether living alone or with other members of their family, are regarded as separate income units; if they have dependent children of their own (of under 18), as may happen in the case of widows and divorced and separated people, their children form part of their income unit; (2) married couples living together are assumed to pool their incomes and each couple is counted as a single unit, and their children of under 18 are also included in their income unit.

Note. * = less than half of one per cent.

Most of the senior posts in business, the professions and the Civil Service are in the range of from £1,000 to £5,000 a year. The posts of from £5,000 to £10,000 a year include Cabinet Ministers, chairmen and some other members of the boards of nationalized industries, Judges of the High Court and Court of Appeal, and Lords of Appeal, the Permanent Secretary to the Treasury, the clerks of the largest municipal authorities, a few persons outstanding in their professions and the top-management of large businesses. A few persons in business draw still higher salaries.

Women have the same right of entry as men to nearly all public offices, administrative posts and professions. They are paid the same salary for doing the same work in medicine, dentistry, physiotherapy, radiography, university teaching, journalism, broadcasting and architecture, and as Ministers of the Crown, Members of Parliament, salaried magistrates and solicitors, pharmacists working in hospitals, and administrative, professional and technical workers in local government. Professional men and women earning fees also have equal pay. In almost all other occupations, however, a woman in Britain doing the same job as a man is at present paid less for doing it, although the position may be quite different in a few years' time. The Government has stated that it accepts the principle of equal pay, and steps are being taken to put it into effect by stages in the public services. In January 1955, the Chancellor of the Exchequer announced Government acceptance of a scheme for progressive increases in the salary scales of non-industrial women civil servants to make these identical with men's scales by 1961; in April 1955, the Minister of Education announced approval of similar proposals by the Burnham Committee (the advisory body concerned with teachers' salaries) for equal pay for women teachers; and in the same month it was decided that equal pay for women in the administrative departments of local authorities should also be introduced by stages.

Hours of Work

While, as already stated, the hours of work in factories of women and young persons between the ages of 16 and 18 are limited by law to 48 a week and those of young persons under 16 to 44 a week, normal hours of work for all ages and sexes are usually shorter. Agreed weekly hours mainly vary between 42 and 46, averaging between 44 and 45, and may be worked as either a five- or a five-and-a-half-day week according to the industry and the rule of the particular establishment. Hours actually worked are somewhat longer owing to overtime working. The survey conducted by the Ministry of Labour and National Service in April 1955 into earnings and hours showed that average weekly hours actually worked were as follows:

Men	48·9 hours
Youths and boys	45·0 ,,
Women	41·9 ,,
Girls	42·7 ,,
All workers	46·9 ,,

Holidays with Pay

It was estimated in May 1952 that more than two-thirds of the total number of wage-earners (including shop assistants) covered by agreements or statutory Orders were entitled to paid holidays of 12 days or two weeks, about one-quarter were entitled to paid holidays of six days or one week, and the remainder to holidays of intermediate duration. Moreover, payment is made for bank or statutory holidays which are as follows: in addition to Good Friday and Christmas Day, there are Bank Holidays in England, Wales, Northern Ireland and the Channel Islands on Easter Monday, Whit-Monday, the first Monday in August and the first weekday after Christmas (Boxing Day), and in Scotland on New Year's Day, the first Monday in May, and the first Monday in August.

Safety

Safety depends in practice at least as much on the education of the worker as upon safety regulations. The Accident Prevention Movement, a voluntary educational campaign, is strongly supported by the Factory Inspectorate and the Mines and Quarries Inspectorate. Inspectors inquire into safety problems, and advise makers on safety aspects of machine design and specification, circulate expert advice by personal exhortation, lectures and literature, and encourage the appointment of Safety Officers and the formation of Accident Prevention Committees. An Industrial Health and Safety Centre is maintained in London by the Ministry of Labour and National Service.

In road, rail and air transport most of the work is outside the jurisdiction of the Factory Inspectorate, but elaborate safety codes are laid down by the various transport authorities. The Royal Society for the Prevention of Accidents helps the Accident Prevention Movement by providing posters and pamphlets and by organizing training courses for safety officers.

Fatal industrial accidents have tended to diminish during the twentieth century in spite of the increase in the number of persons employed. Such accidents rose somewhat in factories during the early years of the second world war. Since then, however, there has been a further decline. Fatal industrial accidents reported during 1954 in the United Kingdom numbered 1,499; of these 436 were in mines and quarries, 721 in establishments under the Factories Acts, 167 in railway service, and 175 in ships registered in the United Kingdom.

Health and Welfare

Many employers achieve health and welfare standards higher than those prescribed by law. An increasing number of firms in Britain provide a whole-time or part-time doctor, an industrial nurse, and a canteen with hot meals, and operate retirement and sickness insurance schemes supplementing National Insurance benefits. Some have their own rehabilitation centres or support convalescent homes.

Health and welfare standards vary from one factory to another. Between a third and a half of the factory workers of the country are employed by small firms employing less than 250 workers, which with more limited resources are not always able to provide amenities for their workers up to the standard of the larger progressive firms. The latter tend increasingly to plan their welfare policy in consultation with the workers, whether through regular consultative machinery or by other means.

The public corporations operating the nationalized industries have set out to be model employers and to standardize and improve the varied provisions for safety, health and welfare made by the undertakings which they took over. They have established safety and first-aid organizations and medical services and have taken part in or supported research designed to reduce the risks of accidents or occupational disease. They have provided or arranged for convalescent homes and, in some cases, rehabilitation centres. They have extended the provision of canteens and other facilities at the place of work, and have made increased contributions to social welfare. Where necessary, they have undertaken considerable housing programmes to provide accommodation for their employees.

A number of official and voluntary bodies help to supply the research, advice and assistance necessary for developing higher standards of industrial health and welfare. These bodies include, besides the Factory and the Mines and Quarries

Inspectorates, such Government agencies as the Medical Research Council (see p. 376), the Department of Scientific and Industrial Research, including the National Physical Laboratory (see pp. 375–6), and the Government Chemist (see p. 382); the Departments of Industrial Health and Social Medicine of the Universities; such voluntary bodies as the Central Council for Health Education, and the Industrial Welfare Society; and the research and personnel departments of various large industrial concerns. Co-ordination is provided by a number of general and special committees.

Human Relations in Industry

There has been a considerable growth in recent years of interest in 'human relations' in industry, i.e. relations between management and their workers as individuals, as distinct from relations between organizations of employers and organizations of workers. This has led to more widespread attention being given to all aspects of personnel management and to the establishment of more personnel departments. Between 1939 and 1944 the number of whole-time personnel managers and welfare officers increased from about 1,500 to 6,000, and this increase seems to have continued since, though perhaps more slowly. While the form of organization of personnel departments varies, the personnel officer is generally responsible for advising all levels of management on the development of good industrial relations. This officer also has particular duties with regard to recruitment, selection, education and training, transfer of labour, the application of wage agreements, the promotion of joint consultation and the supervision of working conditions and employee services.

Both voluntary and official organizations have been concerned with the promotion of better human relationships in industry.

The voluntary organizations include bodies which deal with management problems (see pp. 140–41) and provide a service to subscribing firms, professional associations linking individuals who have a common interest in particular functions of management and administration, and bodies which provide specialist services usually on a fee-paying basis.

In 1945 the Ministry of Labour and National Service established a Personnel Management Advisory Service which has done much to promote good personnel management and to assist firms by discussing problems of personnel policy. The service is staffed by a team of experienced Personnel Management Advisers recruited from industry.

In March 1953 the Department of Scientific and Industrial Research and the Medical Research Council set up two committees which are concerned with research into the human factor in industry. They are known respectively as the Committee on Human Relations in Industry and the Committee on Individual Efficiency in Industry.

The Committee on Human Relations has approved a number of projects for research into factors influencing the effectiveness of incentive payment schemes, factors facilitating and restricting the introduction of new techniques and methods in industry, characteristics of management organization affecting productivity, industrial education, training and promotion, and the problems of the effective employment in industry of special groups such as older persons and married women.

The Committee on Individual Efficiency has concerned itself with research into such matters as the influence of equipment and tool design on operator efficiency, factors affecting the efficient utilization of industrial engineering techniques, and training methods in industry.

VIII. FINANCE

PUBLIC FINANCE

Public finance is concerned with the way public authorities finance their activities—how their expenditure is decided upon and how their revenue is obtained.

Moneys administered by public authorities can be roughly divided into two categories:

1. The moneys of the central Government, raised mainly by taxation and paid into and out of the Exchequer in accordance with the proposals of the Government, as approved by Parliament (principally the House of Commons).

   There are also funds administered for special purposes by Government Departments and wholly or partially maintained by receipts which do not come from the Exchequer. The only important one at present is the National Insurance Fund, administered by the Minister of Pensions and National Insurance, used for the payment of benefits under the National Insurance Scheme (see pp. 323–6) and for a small part of the cost of the National Health Service (see p. 332).
2. The moneys of local authorities, obtained partly from rates (local taxes on dwelling houses and other real estate) and income from property, and partly from grants and loans from the Exchequer. Local authorities may also raise loans in the open market.

The following broad account of Government finance will be concerned mainly with the Exchequer moneys and only incidentally with local government[1] and other public funds.

Financial control, as exercised by the House of Commons, is based on law, parliamentary rights and custom.

As the power of Parliament grew in late medieval and Tudor times, the principle that taxation by the Crown required parliamentary consent was gradually evolved. The principle was established, at the end of the constitutional struggles of the Stuart period, by the Bill of Rights, 1689.

In medieval, Tudor and Stuart times, it is broadly true to say that once the King was granted the right to raise a given sum by taxation, he was free to spend it as he chose. In the eighteenth and nineteenth centuries, the House of Commons gradually developed the modern system of controlling expenditure through the device of Appropriation, which was embodied in its final form in the Exchequer and Audit Departments Act, 1866.

Since the very early days of Parliament it had been established that such financial control as Parliament possessed should be exercised by the House of Commons. This control became effective, as regards taxation, in the seventeenth century, but as regards expenditure it was not effective until the nineteenth century. The controlling power of the House of Commons is acknowledged today in the Speech from the Throne at the opening of a new session of Parliament, which is addressed to both Houses but contains a special paragraph addressed to the Commons alone.

The Commons have traditionally claimed that the Lords have no power to modify financial provisions, though they may reject such provisions. It was indeed to minimize the chance of rejection that the practice was started in 1861 of embodying the main financial provisions for the ensuing year in a single Bill. Since the passing of the Parliament Act, 1911, however, the assent of the House of Lords is no longer necessary for a Bill certified by the Speaker to be a Money Bill (see p. 31).

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[1] For further information on local government finance see pp. 68–69.

Today, the authority of the House of Commons has to be obtained for all expenditure by the central Government itself and for the raising of revenue by taxation or borrowing. All Government revenue is paid into the Government account with the Bank of England—known as the Exchequer Account or the Consolidated Fund. With certain exceptions (the main one being National Insurance benefits), all payments by the Government come out of this account.

The following section outlines the machinery by which expenditure and revenue are authorized and controlled, the purposes on which public money is spent and the sources from which revenue is obtained.

ESTIMATES AND EXPENDITURE

Classification of Expenditure

Central Government expenditure falls into two main groups:

1. Expenditure which is specifically authorized by Act of Parliament without limitation to any particular year. This expenditure includes the interest, sinking fund and cost of management of the National Debt, the financial provision made for members of the Royal Family, and salaries and pensions of judges and certain high officers whose independence of the Government is thought to be better guaranteed by permanent grant than by annual vote. These Consolidated Fund Services represent a permanent charge on the Consolidated Fund.
2. All other Government expenditure, which is authorized from year to year and which includes all expenditure on defence, on the social services and on the general administration of the country. These are called Supply Services because the House of Commons, when voting money, is granting to the Crown 'such aids or supplies as are required to satisfy . . . the pecuniary necessities of the Government'. It should be noted that some of this expenditure may also depend on legislation, such as the National Health Service Acts, relating to a specific object of expenditure.

Authorization of Expenditure

The Estimates for these Supply Services are considered by the House of Commons in Committee of Supply (that is, in Committee of the whole House with the Chairman of Committees, instead of the Speaker, in the Chair). The Committee usually discusses public policy relevant to the Estimates, though any Estimate could be examined in detail if members wished and if time allowed (see also p. 34).

Estimates for Supply Services in the financial year beginning on 1st April are submitted to the Treasury by each Department in the preceding November and December. Estimated expenditure is grouped under main headings called 'Votes' which are further broken down into subheads and items. If the House of Commons approves the Estimates, the sums asked for are voted and later confirmed in the Appropriation Act; this Act appropriates the moneys to specific Votes. Inside each Vote, a 'virement', the spending of money on one subhead instead of on another, is permissible so far as Parliament is concerned, but only with Treasury consent. Departments are free to distribute expenditure within subheads as they please subject to Treasury approval of the type of expenditure involved.

An excess of expenditure, or a new service not covered by the Vote, or a virement of a magnitude or character which the Treasury considers should be brought to the attention of Parliament, requires a Supplementary Estimate. The Treasury exercises the same power of scrutiny over this as over the ordinary Estimates.

Scrutiny of Expenditure

Control of expenditure is maintained by the Treasury, by the Comptroller and Auditor General, by the Select Committee on Public Accounts of the House of Commons and by the Select Committee on Estimates.

The Treasury

The power of the Treasury to control expenditure derives from the responsibility of the Chancellor of the Exchequer for the financial policy of the Government.

A central function of the Treasury is to present the Civil Estimates to the House of Commons. In considering the Estimates submitted by Departments, the Treasury has to weigh the advantages of administrative proposals against the monetary and economic cost, taking into account current Government policy, to decide the relative merits of expenditure proposed by different Departments and to eliminate any overlapping, uneconomic or wasteful expenditure where this has escaped the net of departmental financial control. Quite apart from the scrutiny of Estimates, throughout the year the Treasury keeps a close control over such matters as rates of pay and the aggregate size of the staff in all Government Departments, in addition to exercising a general supervision over all departmental expenditure. The Treasury also lays down general rules of financial and accounting procedure for Departments and prescribes the principles on which departmental contracts shall be made and the limits within which losses may be written off.

The Comptroller and Auditor General

Control over issues of money to Departments and the audit of accounts is exercised by the Comptroller and Auditor General, who holds a permanent appointment as an officer of Parliament. Since 1866 he has had two functions: as Comptroller of the Exchequer he controls entries and issues of public money to and from the Exchequer Account, and as Auditor General he audits departmental accounts and submits the Appropriation Accounts to Parliament. His statutory function is to ensure that all expenditure is properly incurred, e.g., that no payments are made which go beyond any relevant statutory authority, and that Treasury sanction has been obtained wherever necessary. In addition, however, he has been encouraged by successive Committees on Public Accounts (see next paragraph) to examine departmental expenditure with a view to drawing the attention of that Committee to any cases of apparent waste or extravagance.

The Select Committee on Public Accounts

The accounts of each Department and the reports of the Comptroller and Auditor General thereon are considered by the Select Committee on Public Accounts (PAC). This was set up in 1861, by Mr. Gladstone, for the purpose of ensuring that expenditure was properly incurred in accordance with the Estimates and with any relevant Acts of Parliament, but it has since developed much wider powers. Nowadays it may consider whether full value has been obtained for the sums spent by Departments and it examines cases in which the administration appears to have been faulty or negligent. The Committee has therefore become a powerful instrument for the exposure of waste and inefficiency. It embodies its findings in Reports which may be discussed in the House of Commons. Its recommendations are considered by the Treasury in consultation with Departments and put into effect, so far as they are accepted, according to Treasury instructions. If the recommendations are not acceptable a reasoned reply has to be submitted to the Committee, which may either accept the objections or return to the charge in subsequent reports.

Select Committee on Estimates

This Committee was originally set up in 1912 but was re-formed in 1929 with wider terms of reference. Under these terms it has been re-appointed annually except during the war years. The Committee's functions are to examine the Estimates, to suggest the form in which they should be presented, and to report whether there are any economies which could be made without altering the policy implied in the Estimates. It is customary for the Committee to select each year a few aspects of Government-voted services for review. In practice the Estimates for the current year are not affected, but the Committee's recommendations may reinforce Treasury control and influence the nature of expenditure in succeeding years.

REVENUE AND THE BUDGET

Sources of Revenue

Money to meet the normal Budget expenditure of the central Government is in normal years derived mainly from taxation. The revenue from loans and investments is small, and other sources of revenue, e.g., trading surpluses of Government Departments, are not important.

Taxes can be divided into two groups, direct and indirect, which correspond roughly to the duties collected by the Board of Inland Revenue and by the Customs and Excise Department. The most important Inland Revenue duties—income tax (including surtax), profits tax and estate duty (death duty)—are levied directly on the income or property of those who, in general, have to bear them. Income tax on individual (though not on corporate) incomes and estate duty are progressive taxes, that is, larger incomes and estates bear a proportionately higher rate of tax. Stamp duties, although not a direct tax, are also collected by the Board of Inland Revenue. Taxes on motor vehicles are collected by local taxation authorities, which are the county or county borough councils in England and Wales and the corresponding councils in Scotland; the proceeds are paid by the local authorities to the Exchequer.

Most indirect or outlay taxes are Customs and Excise duties and are levied on commodities or services. They are called indirect because the importer, manufacturer, wholesaler, or provider of commodities or services pays them first and then passes them on to the individual consumer in the form of higher retail prices.

Customs duties are levied on imported goods, and Excise duties on goods produced, and services provided, at home. The Purchase Tax, which is also collected by the Customs and Excise Department, applies equally to home-produced and to imported goods.

Budget Procedure

'Budget' is an ancient name for a bag containing papers or accounts. The origin of the term lies in the phrase 'The Chancellor of the Exchequer opened his budget', which was applied in Parliament to the annual speech of the Chancellor of the Exchequer explaining his proposals for making revenue and expenditure balance. By the time the Budget is introduced, the Estimates will have been presented to Parliament and published, and the expected total of Government expenditure for the year will be known.

The Budget speech is the main occasion of the year for reviewing the financial state of the nation. But its formal basis is the Chancellor of the Exchequer's proposals for raising money by taxation: he estimates the yield of the revenue on the basis of existing taxation and proposes such changes as will provide whatever surplus or deficit he considers desirable on general economic grounds. These proposals are later embodied in detail in a Finance Bill.

Budget Policy

The original purpose of the Budget was purely financial—to provide money for Government expenditure. From an early stage, however, it was appreciated that taxation would affect the distribution of income and property and the level of the expenditure on particular goods and services. At a later period it came to be realized that taxation also affected the nation's total expenditure and therefore the general level of economic activity. Since the second world war, Budgets have been consciously designed in greater or lesser degree to bring the total of personal and governmental demand for goods and services into balance with the supplies which could be made available.

Direct taxation on income and property affects the distribution of wealth because the rates vary according to the size of income and property, the proportion of a high income going in tax being much greater than the proportion of a small one; at the same time, the services provided by the Government (whether in cash or kind) are generally available to all, irrespective of wealth, but in some cases they are specially designed to benefit people with lower incomes. Indirect taxes do not affect the distribution of income; their main purpose has always been the raising of revenue, but by discouraging or encouraging consumption of particular goods they can be used to influence the allocation of resources and the pattern of trade.

The Budget affects the general level of expenditure (personal and governmental), and therefore the total demand for goods and services, in the following way: if there is an increase in Government expenditure without an increase in taxation then total demand for goods and services will tend to rise; the same thing will happen if there is a decrease in taxation without a decrease in Government spending. In this way the Budget can be used to counter unemployment. On the other hand if there is an increase in taxation without an increase in Government expenditure or a decrease in Government expenditure without a decrease in taxation then the total demand for goods and services will tend to fall. In this way the Budget can be used to counter inflation.

For some years after the war, budgetary policy was mainly designed to avoid inflation by holding down consumer demand for goods and services so that it would not hamper exports, investment or (since 1950) the defence programme. The Budgets of 1951 and 1952 aimed also to hold down investment in the interests of exports and defence. By 1953, however, as total demand had fallen while productive capacity had increased, some unused resources became available; in consequence there was a reduction of taxation in the 1953 Budget, which aimed particularly at encouraging higher investment and production. These aims were continued in the 1954 Budget, when, however, changes in taxation were much smaller than in 1953. The Budget of April 1955, which gave further tax reliefs, was followed in October by a Supplementary Budget which had the purpose of reinforcing measures, including a tighter credit policy, instituted earlier in the year with the object of curtailing excessive internal demand and of strengthening the balance of payments position.

The principal taxation changes introduced in the Budgets of 1953, 1954 and 1955 were as follows:

1953 (Cost to the Exchequer £169 million in the first year and £413 million in a full year.)

Income Tax and Profits Tax. The standard rate of income tax was reduced from 9s. 6d. to 9s. in the £, with 6d. off the reduced rates which apply to the first slices of taxable income of individuals. The initial allowances—for the purpose of calculating liability to income tax and profits tax—were restored for capital expenditure on plant and machinery, industrial buildings and mining works. The allowances had been withdrawn as from 1952.

Excess Profits Levy. This was abolished as from 1st January 1954.

Indirect Taxation. Rates of purchase tax on most goods were reduced by one-quarter with larger reductions in a few cases. Cricket and amateur sports and games were exempted from Entertainments Duty.

1954 (Cost to the Exchequer £4½ million in the first year and £6¾ million in a full year. These figures exclude the cost of the investment allowance, which is put at £4 million in 1955–56 and will increase thereafter.)

Income Tax and Profits Tax. A new investment allowance was introduced, in place of the existing initial allowance, for capital expenditure on new plant and machinery, industrial buildings and mining works. The allowance extended also to new buildings and plant used for scientific research and agricultural buildings, which did not qualify for the initial allowance. (The initial allowance merely anticipated subsequent depreciation allowances, the total allowances being limited to the net cost of the asset: the investment allowance is given in addition to other allowances amounting to the full net cost.)

Estate Duty. Some anomalies were corrected and concessions made to assist family businesses. The starting point of liability to the duty was raised from £2,000 to £3,000.

Indirect Taxation. Entertainments Duty was reduced on admission to all dutiable entertainments.

1955 **April.** (Cost to the Exchequer £134 million in the first year and £155 million in a full year.)

Income Tax. The standard rate was reduced from 9s. to 8s. 6d., with cuts of 3d. in the reduced rates, adjustments in personal allowances and increases in child allowances.

Indirect Taxation. The rate of purchase tax was halved on cloth and household textile articles made of cotton, linen, rayon or other non-woollen material. (Most of these goods were later exempted from tax.)

1955 **October.** (Supplementary Budget. Gain to the Exchequer £15 million in 1955–56 and £112·5 million in a full year.)

Profits Tax. Increase in the rate of profits tax on distributed profits from 22½ per cent to 27½ per cent.

Excise. Increase of purchase tax by one-fifth (with certain exceptions). Some household goods, previously exempt, were made subject to tax.

THE EXCHEQUER ACCOUNTS

In the Budget of April 1955, total current expenditure for the financial year ending 31st March 1956 was estimated to reach £4,562 million, while the estimate for total current revenue (after allowing for taxation changes) was £4,710 million,[1] making a surplus of £148 million.[1] These figures exclude self-balancing revenue and expenditure (almost entirely post office trading), for which the estimate was £260 million. On capital account, total expenditure was estimated at £776 million, while total receipts were estimated at £192 million leaving a deficit, to be met by borrowing, of £584 million. Comparable figures for previous years are given in Table 6, p. 99.

Budget and Expenditure

Total 'ordinary' expenditure for 1955–56 falls under four main heads: defence preparations £1,557 million (34 per cent of the total), National Debt service £636 million (14 per cent), social services and subsidies £1,795 million (39 per cent) and general services, which make up the remaining £574 million (13 per cent).

The total for defence preparations, £1,557 million, is made up of £1,537 million voted for Service Departments for the defence programme less American Aid receipts (expected to amount to £43 million), plus £63 million for defence preparations under civil votes, mainly civil defence and strategic reserves.

The second heading, National Debt service, comprises £600 million for interest and management charges on War Loans, Savings Certificates and other forms of national debt, and £36 million for sinking funds.

The main items under the third heading, social services and subsidies (£1,795 million) can be subdivided as follows: education (£343 million); health services (£462 million); Government contributions to National Insurance Fund, family allowances, war pensions, etc. (£414 million); assistance to local authorities for housing, police, roads, etc. (£265 million); and agricultural and food subsidies (£311 million).

The main items under the fourth heading, general services (£574 million) are: Commonwealth and foreign services £80 million; works, buildings, stationery and information services £62 million; Northern Ireland Exchequer[2] £61 million; atomic energy £51 million; tax collection £44 million; agriculture and fisheries £35 million; broadcasting £28 million; research and development £21 million[3]; employment services £20 million; civil aviation £17 million; and Colonial development and welfare £18 million.

Current Revenue

The total current revenue estimated for 1955–56 (£4,710 million[1]) falls under two main heads: Inland Revenue, £2,478 million (53 per cent of the total) and Customs and Excise, £1,928 million[1] (41 per cent). The remaining 6 per cent consists of receipts from motor vehicle duties (£80 million), from broadcast receiving licences (£25 million), from sundry loans (£24 million) and from miscellaneous sources (£175 million).

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[1] In his statement on the Supplementary Budget of 26th October 1955, the Chancellor of the Exchequer estimated that changes in taxation introduced by the Supplementary Budget would raise total revenue by approximately £15 million (mainly on account of purchase tax) for the financial year 1955–56.

[2] Mainly the payment from the United Kingdom Exchequer, under the Government of Ireland Act, 1920, of the Residuary Share of Reserved Taxes which is the amount of income tax and other revenue collected in Northern Ireland less the sum deducted for cost of collection and the Northern Ireland Contribution towards Imperial Expenditure (see also pp. 287–8).

[3] Excluding expenditure by the Ministry of Supply, the Defence Departments and the Atomic Energy Authority.

The yields from the different sources of Inland Revenue in 1955–56 are expected to be as follows:

Inland Revenue	*£ million*
Income Tax	1,877
Surtax	136
Estate Duties	185
Stamp Duties	74
Profits Tax	180
Excess Profits Levy (ended from 1.1.54)	25
Other Duties	1
Total	2,478

Income tax is imposed at a standard rate for the year of assessment beginning on 6th April. For 1955–56 the standard rate is 8s. 6d. in the £. The tax imposed on an individual is graduated by means of personal allowances, by reduced rates of tax on the first sections of taxable income, and by the surtax. In the case of a married couple the incomes of husband and wife are aggregated and are treated as one income, but a higher personal allowance is given than for a single person.

The amount of income tax paid yearly by people with different incomes is shown in Table 33.

TABLE 33

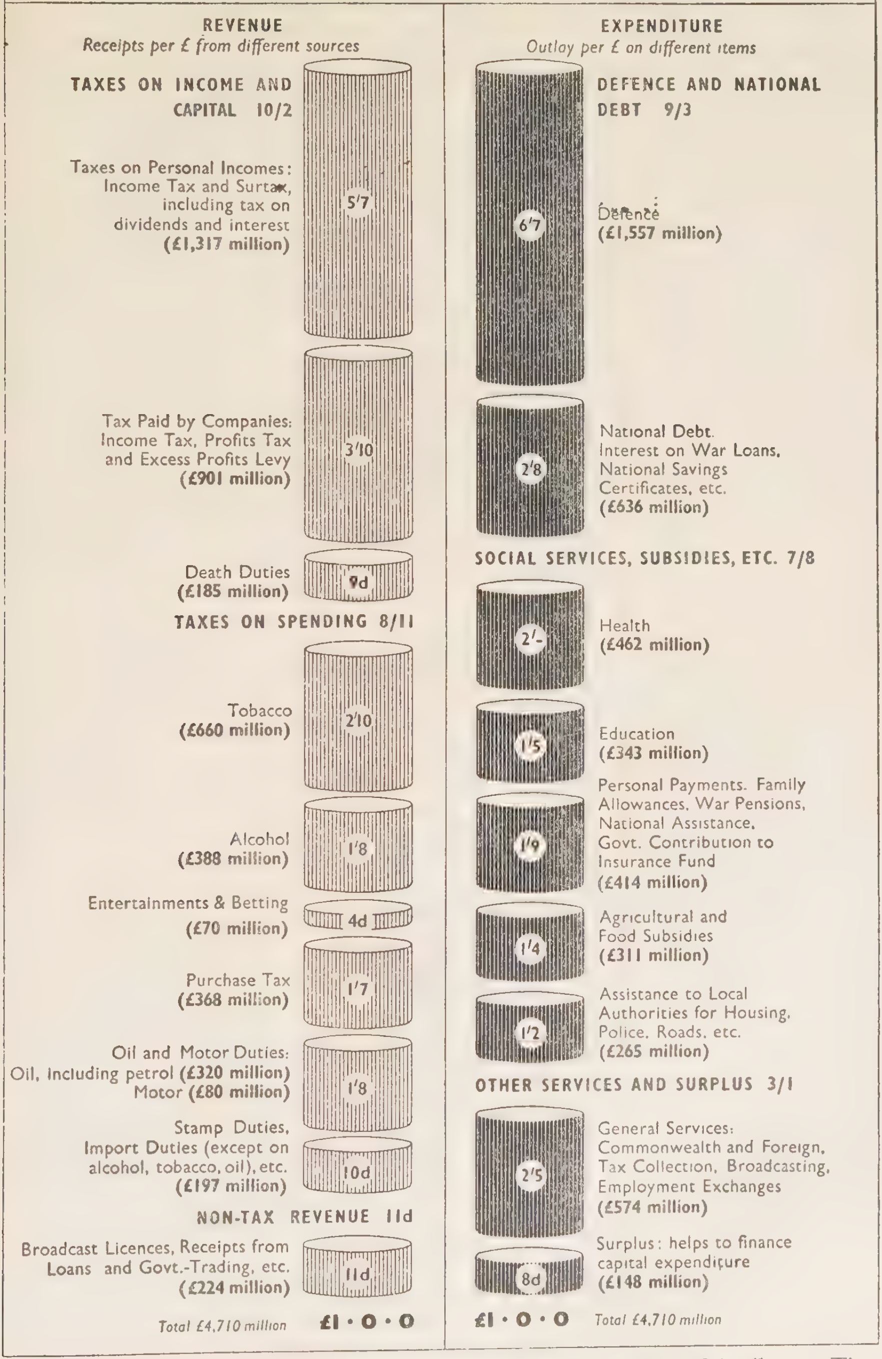
Income Tax and Surtax Paid by Persons with Different Incomes and Family Responsibilities 1955–56

Income before tax	Single persons				Married couples without children				Married couples with two children			
	Income all earned income		Income all investment income*		Income all earned income		Income all investment income*		Income all earned income		Income all investment income*	
£	£	s.	£	s.	£	s.	£	s.	£	s.	£	s.
200	1	15	1	15	—		—		—		—	
300	14	13	14	13	—		—		—		—	
400	33	3	59	5	9	8	30	10	—		—	
500	55	10	93	0	27	17	59	5	—		6	15
1,000	211	1	305	10	168	11	263	0	85	10	178	0
2,000	541	12	730	10	499	2	688	0	414	2	603	0
5,000	2,326	15	2,518	0	2,284	5	2,475	10	2,199	5	2,390	10
10,000	6,126	15	6,318	0	6,084	5	6,275	10	5,999	5	6,190	10

Source: *Financial Statement*, 1955–56.

* Some relief is given when the taxpayer (or his wife) is over 65 years of age: investment incomes not exceeding £600 are charged on the same scale as earned incomes. Where the total income exceeds £600, marginal relief is given so that the full tax on the investment income scale is not payable until the marginal relief runs out.

THE NATIONAL BUDGET 1955-56



Note: The figures in this diagram are based on the Budget estimates of April 1955. They will be slightly modified by the Supplementary Budget of October 1955 (see p. 282).

Since 1943 most wages and salary earners have paid their income tax under a PAYE ('Pay-as-you-earn') Scheme enabling them to keep up to date in tax payments.

Companies are liable at the standard rate of tax on their total income irrespective of its amount; they are also subject to profits tax of 27½ per cent on profits distributed as dividends, and of 2½ per cent on undistributed profits.

In general, income arising from sources within the United Kingdom is subject to United Kingdom income tax, even though the person entitled to the income is not resident in the United Kingdom, except in the case of certain United Kingdom Government securities. Where the income arises from sources outside the United Kingdom, tax is not chargeable unless the owner becomes chargeable as a resident. The United Kingdom has entered into agreements with many countries providing for relief from double taxation; where such agreements are not in force the United Kingdom allows unilateral relief.[1]

The scale of estate duty is illustrated in Table 34. In 1946 estates of a net capital value of less than £2,000 were exempted from payment of duty and a new scale for values over £2,000 was introduced. The scale was altered again in 1949, when legacy and succession duties were consolidated with estate duty. In 1954 estates below £3,000 were exempted from estate duty.

The yields from the different sources of Customs and Excise revenue in 1955–56 are expected to be as follows:

Customs and Excise

	£ million
Tobacco	660
Spirits	120
Beer	245
Wine and British wine	23
Oil	320
Purchase tax	368*
Entertainments	41
Betting	29
Matches and mechanical lighters	13
Sugar (and related duties)	12
Duties under Import Duties Act, 1932	70
Other duties	27
Total	1,928*

* Increased by £15 million as a result of the Supplementary Budget of October 1955.

Capital Payments and Receipts

The Government also receives funds and makes payments of a capital nature for which it has statutory power to borrow and which are therefore excluded from the Budget expenditure met from revenue. In the last few years the main items of capital expenditure have been loans to local authorities for housing and other invest-

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[1] The information in this paragraph is not legally authoritative. For this purpose reference should be made to the relevant Statutory Rules and Orders. Inquiries in the United Kingdom should be addressed to the Secretary, Board of Inland Revenue, Somerset House, London, W.C.2.

TABLE 34

Estate Duty Paid on Estates of Different Values

Deaths On or After 30 July 1954

Net capital value of total estate £	Duty £	Net capital value of total estate £	Duty £
3,000	Nil	30,000	5,400
4,000	40	40,000	9,600
5,000	100	50,000	15,500
10,000	400	100,000	45,000
15,000	1,200	500,000	325,000
20,000	2,400	1,000,000	750,000

Source: *Ninety-seventh Report of the Commissioners of Inland Revenue.*

ment; funds to meet capital expenditure by the Post Office; War Damage payments; issues to the Exchequer Equalization Account; and working capital for the National Coal Board. Capital receipts have come mainly from the repayment of these loans. If, on balance, there is a deficit, it is met from the proceeds of Government borrowing, while if there is a surplus it goes to reduce the National Debt.

The National Debt

So far, borrowing on a large scale has been undertaken only to finance deficits during or immediately after a war. The National Debt rose from £651 million in 1914 to £7,435 million at the end of the first world war, and from £7,131 million in 1939 to £23,637 million in 1946. On the 31st March 1955 the total National Debt was £26,933 million, of which £2,130 million was repayable in currencies other than sterling, mainly to the United States and Canadian Governments. Of the £24,803 million of internal debt, about £5,250 million was short-term debt, mainly in the form of 91-day bills on the Treasury, while the long-term loans included a variety of stocks, bonds, loans, and certificates carrying fixed rates of interest (ranging from 2¼ to 4 per cent) and with fixed or indeterminate dates of repayment.

Since the war new lending by the Government has exceeded loan repayment, as the main borrowers, the local authorities, repay over a long term. From 1945 to the end of 1952 local authorities relied on the Exchequer for virtually all their loans. As from 1st January 1953 they were given permission to borrow on the open market. In his Budget Statement of October 1955, the Chancellor of the Exchequer announced that local authorities had been asked to exercise restraint in their expenditure. The volume of Government lending to them would be checked and the Public Works Loan Board (see p. 69) would 'put all applicants on inquiry as to their ability to raise the finance on their own credit either in the stock market or in the mortgage market'. Any advances granted would be at a rate of interest 'reflecting not Government credit, but the credit of local authorities of good standing in the market for loans of comparable periods'.

Northern Ireland

The general system of public finance in Northern Ireland is, in its main features, similar to that operating in Great Britain, under which public revenues, with a few minor exceptions, are paid into the Exchequer, from which no money can be withdrawn except on the authority of Parliament. That authority, as in Great Britain, is expressed in the case of Consolidated Fund charges in permanent legislative form, and in the case of Supply Services by annual Appropriation Acts based on estimates prepared by Departments and sanctioned by the Ministry of Finance.

The major portion of the taxation in Northern Ireland, comprising Customs and Excise duties, purchase tax, income tax and surtax and excess profits levy, is levied and collected by the United Kingdom Government and the proceeds are paid in the first instance into the United Kingdom Exchequer. From this portion, known as 'Reserved' Revenue, there is deducted and retained by the United Kingdom Treasury in accordance with the Government of Ireland Act, 1920, the sum contributed by Northern Ireland towards Imperial Services (called the 'Imperial Contribution'), the cost of the administration of the Supreme Court, the Post Office, and other Reserved Services, and the cost of collecting Reserved Revenue. The balance, termed the 'Residuary Share of Reserved Taxes', is paid over to the Exchequer of Northern Ireland and joins with the proceeds of taxes levied and collected by the Government of Northern Ireland, called 'Transferred' Revenue, and with other non-tax receipts of a miscellaneous nature to form the public income. The items of Transferred Tax Revenue are estate duties, stamp duties, entertainments duty, Excise licence duties and motor vehicle duties.

A Joint Exchequer Board, representative of Great Britain and Northern Ireland, constituted in accordance with the Government of Ireland Act, 1920, determines the amount of Reserved Revenue and the cost of Reserved Services attributable to Northern Ireland for each year, the amount of the Imperial Contribution and such other questions affecting the financial relations of the two Governments as may be referred to it.

The Public Debt of Northern Ireland, totalling £43 million at 31st March 1955, is fully covered by repayable advances and investments held by the Ministry of Finance.

Outside the Exchequer system in Northern Ireland there have been established, in addition to statutory Reserve and Sinking Funds, various funds created to meet the requirements of specific sections of the community. These funds in general follow the United Kingdom pattern, the principal being those relating to National Insurance and Government loans. The latter constitutes a pool of capital moneys available for local and public authority borrowings; at 31st March 1955, a sum of approximately £53 million was outstanding against such authorities.

BANKING AND PRIVATE FINANCE

The British banking system is long established and well integrated. It consists of a Central Bank; of Commercial Banks which carry on the usual main banking services; of the United Kingdom offices of various banks whose main business is in other countries; and of various specialized banks and similar financial institutions.

The Bank of England

The Bank of England is the Central Bank and its principal business is to act as banker to the Government and to the other banks, as the agent of the Government for important financial operations and as the central note-issuing authority; it also maintains relations with central banks overseas. It was established in 1694 by Act of Parliament as a corporate body and its entire capital stock was acquired by the Government under the Bank of England Act, 1946.

As the central bank, the Bank of England acts in conjunction with other banks and financial institutions in co-ordinating the application of the Government's monetary policy. One of the main instruments for this purpose is the Bank Rate—the rate at which the Bank of England will discount approved bills of exchange.

As banker to the Government the Bank of England holds the main Government accounts and it acts as the Government's agent for the issue and registration of Government loans. It also operates, for the Treasury, the administration of exchange control which has been in force since 1939 (see pp. 311–12).

The commercial banks maintain large balances with the Bank of England and these balances form part of the bankers' cash reserves.

The Bank of England has the sole right in England and Wales of issuing bank notes. Notes thus issued need a 100 per cent cover in gold and securities, the part covered by the latter being the 'Fiduciary Issue', the level of which is subject to parliamentary control. In practice very little gold is now held by the Issue Department of the Bank of England, the bulk of the United Kingdom gold (and foreign exchange) reserves being in a separate account, known as the Exchange Equalization Account, originally established in 1932, for the purpose of checking undue fluctuation in the exchange value of sterling. The provision of coin for circulation is the responsibility of a Government Department, the Royal Mint.

The Commercial Banks

The banks handling the major part of the domestic banking business in the United Kingdom are, in the main, limited liability companies which are subject to the ordinary law relating to such companies.

Some of the main distinguishing features of the United Kingdom commercial banks are:

1. A relatively small number of banks control a large number of branches. Domestic banking members of the British Bankers' Association number 27, including 7 in Scotland, and 3 in Northern Ireland; these banks control nearly 12,500 branches and have total assets of over £8,000 million.
2. The volume of cheques handled is very large and, in spite of a stamp duty of 2d. on each cheque, many payments—and even relatively small payments—are made by cheque. The average daily value of cheques, drafts, bills and bankers' effects cleared in 1954 through the London and Provincial Clearing Houses was £478 million; and many cheques do not, for various reasons, pass through Clearing Houses.
3. It is the practice of the chief United Kingdom banks to maintain a ratio of about 8 per cent between cash reserves and total deposits (of which about two-thirds are repayable on demand, the remainder being deposits at interest and subject to notice).

   In September 1955 about 36 per cent of the banks' deposits were covered by cash and short-term securities while longer-term securities amounted to about 32 per cent, and advances to customers to about 31 per cent of total deposits. It is not the practice of British banks to participate directly in industry, the financing of which is, as far as they are concerned, normally limited to short-term advances.
4. Certain banks in Scotland and Northern Ireland have retained limited rights to issue notes; these issues must, apart from an amount for each bank which is specified by legislation, be fully covered by Bank of England notes and by coin.

United Kingdom Offices of Banks Operating Mainly Overseas

The importance of London as a financial and trading centre and as the largest city of the British Commonwealth has encouraged many banks whose main business is in the Commonwealth and other countries to have London offices; in some cases, indeed, the institutions concerned are United Kingdom companies and the London office is the head office. These London offices form part of the complex structure engaged in the financing of trade not only between the United Kingdom and other countries but also in goods which are shipped direct between other countries.

Savings Banks and the National Savings Movement

The function of Trustee and Post Office Savings Banks is to provide facilities for the investment of voluntary savings and particularly of the small savings of persons with small incomes. Both these types of banks were well established during the nineteenth century. The growth of their business was, however, encouraged in the first world war when the War Savings Committee was set up under Government auspices to promote an official savings drive. A new type of long-term security for the small investor was inaugurated at that time. This was the National Savings Certificate, with interest payable only on encashment, but free of income tax. From this war-time drive originated the present National Savings Movement devoted to the encouragement of the widespread investment of savings in Trustee and Post Office Savings Banks and in National Savings Certificates and Defence Bonds. The policy of the movement is determined by the National Savings Committee for England and Wales and similar committees for Scotland and Northern Ireland. The committees are bodies of independent persons representing regional savings organizations and various national institutions connected with such matters as finance, industry and education. They are assisted by a salaried staff of civil servants. Voluntary local savings committees, often assisted or promoted by local authorities, co-ordinate the work of voluntary local savings groups.

Trustee Savings Banks are managed by boards of honorary trustees and managers, and most of the funds deposited with them are ordinary deposits which are withdrawable on demand or at short notice. These deposits are invested with the National Debt Commissioners, and the Government is responsible to the trustees for the repayment of the money so invested with accrued interest as and when required. Trustee Savings Banks also accept, in certain circumstances, deposits for special investment. These deposits, which may receive a slightly higher rate of interest than ordinary deposits, are invested under the supervision of the National Debt Commissioners, but the Government is not responsible to the trustees for the repayment of these investments. Trustee Savings Banks are particularly flourishing in small towns. In October 1955 there were about 1,315 Trustee Offices controlled by 84 independent banks.

The Post Office Savings Bank is the largest organization of its kind in the world. It has nearly 23 million active accounts; in July 1955 total balances, which carry a Government guarantee, amounted to £1,735 million, about £80 per depositor. Through a centralized system of accounting, a depositor can pay in money or make a withdrawal at any one of some 19,000 post offices throughout the country.

To ensure that Savings Banks are used primarily by the small investor there is a limit of £500 on the amount which may be deposited by any individual in one year, and of £3,000 on the total balance which may be held by one individual. The maximum amount of National Savings Certificates which may be held by any one person is £900 worth of the current (ninth) issue and about £2,000 worth of all issues. The limit on individual holdings of the current issue of Defence Bonds (4 per cent) is £1,000; this is in addition to holdings of previous issues.

Co-operative Banks

The Co-operative Wholesale Society formed a deposit and loan department about the year 1870, and the right of a co-operative society to engage in banking was legally defined in the Industrial and Provident Societies Act in 1876. The primary purpose of the Co-operative Wholesale Society Bank was to serve the Co-operative movement, whose financial centre it has become, but the bank has also come to include among its clients trade unions and other mutual societies, local authorities and individual depositors.

OTHER FINANCIAL INSTITUTIONS

It has been the policy of the commercial banks to leave the provision of many special financial facilities to other financial institutions. These facilities, which are supplementary to the credit facilities of the banking system, are mainly provided through the Discount Market, Finance Corporations, the Stock Exchange, Investment Trusts, Building Societies and the Insurance Market. New Issues, except for certain small operations, are controlled by the Treasury with the advice of the Capital Issues Committee (see p. 293).

The firms engaged in this business are in the main highly specialized, e.g., discount houses, stockbrokers, insurers, insurance underwriters and brokers. In addition to these specialist firms, however, there is a class of bank, the merchant bank, which has been of great importance in the finance of trade and commodity dealings and in the flotation of major issues of bonds, particularly for oversea concerns and governments.

The merchant banks helped to give London an international reputation as the main world centre for short-term and long-term borrowing. Long-term loans for development purposes created a continuing claim for interest and attracted to Britain a steady flow of orders for machinery, textiles and coal. This increasing trade was usually financed by bills of exchange, which were traded on the discount market and provided an easy method of transferring debts and claims.

The Discount Market

The main business of the Discount Market consists of trading in and holding commercial bills of exchange, United Kingdom Government Treasury Bills and other short-term securities.

To the extent to which the various firms which compose the Discount Market have insufficient funds of their own to finance the bills and securities which they wish to hold, they obtain loans from the banks and, to a lesser extent, deposits from the public. In the main these loans and deposits may be called in at any time.

The commercial banks do not, in the ordinary way, buy Treasury Bills at the weekly tenders except on behalf of customers, but purchase, from the Discount Market, bills which have been taken up by the market and held until they become of a currency required by the banks.

If the banks call in loans which they have made to the Discount Market and the latter is unable to cover its needs elsewhere, it will be forced to borrow from the Bank of England. It is not the practice of the commercial banks themselves to obtain direct loans from the Bank of England to augment their cash resources if the need arises.

Finance Corporations

Two corporations, the Finance Corporation for Industry Limited and the Industrial and Commercial Finance Corporation Limited, were set up in 1945 to assist in dealing with the problems of post-war reconstruction and development. Although the Government displayed considerable interest in their formation, the Corporations themselves are ordinary limited companies with no official representation on the boards and having no recourse to public funds. Another finance corporation, the Commonwealth Development Finance Company Limited, was established in 1953 to assist development projects in the Commonwealth. Among other financial corporations of note are the Agricultural Mortgage Corporation Limited, Air Finance Limited and the National Film Finance Corporation.

Finance Corporation for Industry Limited

The FCI was formed to assist in the provision of capital (in amounts of £200,000 and upwards) for the re-equipment and development of industry with a view to promoting efficiency and thereby assisting in the maintenance and increase of employment.

The Corporation has an authorized and issued capital of £25 million and may borrow up to four times this amount, making a possible total of resources of £125 million. The share capital is held as follows: 40 per cent by insurance companies, 30 per cent by trust companies and 30 per cent by the Bank of England. As at the 31st March 1954 the capital had been paid up to the extent of 2 per cent (£500,000), the liability of the shareholders in respect of the uncalled capital representing security to the banks who provide the capital out of which the Corporation makes its advances.

The enterprises assisted by the FCI are concerned with a variety of products, e.g., diesel engines, permanent prefabricated houses, shipping, electrical components, steel, oil, chemicals, etc.

Industrial and Commercial Finance Corporation Limited

The ICFC is smaller than the FCI and has as its main object the provision of credit and finance by means of loan capital and share capital for industrial and commercial concerns in Great Britain, particularly in cases where the existing facilities provided by banking institutions and the Stock Exchange are not readily or easily available.

The authorized and issued share capital of the Corporation is £15 million which is paid up as required; the Corporation can borrow up to a further £30 million and can thus have a maximum of £45 million available. Although the Bank of England has a token participation, the principal shareholders are the London Clearing Banks and the Scottish Banks in proportion to their size; the loan capital is provided by all the shareholders in the same ratio as their shareholdings.

The nature of the Corporation's business is to provide finance in sums ranging between £5,000 and £200,000 for small and medium-sized concerns. It has a large number of customers and has established branches in Birmingham, Manchester and Edinburgh.

Agricultural Mortgage Corporation Limited

The primary function of this Corporation, which was established in 1928, is to grant long-term loans against first mortgages on agricultural lands and buildings in England and Wales. The share capital was subscribed by the Bank of England and other banks, but the greater part of the funds is derived from public issues of debentures of which about £30 million is outstanding (see also p. 156).

The Scottish Agricultural Securities Corporation Limited

This Corporation, with share capital subscribed by Scottish banks, fulfils similar functions in Scotland (see also p. 156).

Commonwealth Development Finance Company Limited

This Company was established early in 1953. It originated from the Conference of Commonwealth Prime Ministers in December 1952 and its purpose is to finance development schemes in the British Commonwealth. The authorized capital of this company is £15 million but to begin with only £2·9 million has been called up; the Company is empowered to borrow up to twice its issued capital (see also p. 305).

Air Finance Limited

This Company was formed by a group of bankers and the FCI late in 1953 for the purpose of financing aircraft exports. Its initial resources were £11 million (see also p. 195).

The National Film Finance Corporation

The Corporation is a statutory body established under the Cinematograph Film Production (Special Loans) Act, 1949. Its function is to make loans to film producers and distributors in order to help to finance the production of films (see also pp. 395–6).

The Stock Exchanges

Although there are several Stock Exchanges in the United Kingdom, the London Stock Exchange is by far the most important.

The Stock Exchanges provide a means by which a holder of quoted stock or shares (all important securities are quoted) can, if he wishes, find a buyer for his securities; they are also a most important element in the raising of new capital by Government and commercial borrowers.

The Stock Exchanges do not fix dealing prices; the terms on which bargains are made between members reflect the interaction of supply of and demand for the securities concerned.

All the Stock Exchanges operate under strict rules of conduct which they make themselves.

The Capital Issues Committee

Since 1932 there has been control to a greater or lesser degree over capital issues in the United Kingdom. The 1932 controls, and such modifications as were made up to 1939, were without a statutory basis but resulted from public requests by the Chancellor which the various markets observed. At the outbreak of war in 1939 the Foreign Transactions (Advisory) Committee, which had been set up in 1936 to advise the Treasury on issues involving remittances to countries outside the Commonwealth, was renamed the Capital Issues Committee and was given the wider task of advising the Treasury on the administration of the statutory control of capital issues (and analogous transactions) for which provision was made in Regulation 6 of the Defence (Finance) Regulations, 1939.

The end of the war in 1945 saw the retention of the Capital Issues Committee with its primary function unchanged; permanent provision for capital issues control was made the following year with the passing of the Borrowing (Control and Guarantees) Act, 1946.

The Committee is entirely independent of Government Departments and consists of seven men of experience in commerce, industry or finance, who consider applications to raise loans or issue capital (except those which do not involve more than £50,000 in any one year for the borrower concerned, or which for certain other reasons may be exempt) and tender their advice to the Treasury upon them.

Investment Trusts

Investment trusts cater for the investor who does not wish or has not sufficient resources to hold a large number of investments in his own name but who desires to have an interest in several securities as a means of spreading his risk.

The ordinary type of investment trust is a public company, limited in liability and registered under the Companies Acts; investment trusts in this form have been established in the United Kingdom for about a century. They invest their share and their loan capital over a range of securities, the precise choice depending in part on the objects of the particular company concerned.

Since 1931 there have also been 'unit trusts' in the United Kingdom; a trust of this type is normally limited by its trust deed to a specified range of securities. The original conception of the unit trust was that securities could be grouped in fixed proportions to form units, and these units could be divided into sub-units which could be sold to the public. In practice, while retaining this unit basis of investment, many unit trusts have considerable flexibility in their choice of the underlying securities.

The Insurance Market

The British insurance market is in the main divided into two parts, the insurance companies and Lloyd's. The company market is the larger, but Lloyd's is older and has a greater claim on the popular imagination.

Insurance Companies

The company market consists of about 300 British insurance offices, chiefly incorporated under the Companies Acts, of which some two-thirds are small or of local or specialized significance, whereas the remainder transact a general business. Most of the latter are controlled by about 30 very large companies of international repute. In addition some 200 oversea companies are represented, emphasizing the international nature of the insurance market. The natural focus of the market is in London, although some of the largest offices have their administrative centres elsewhere. In addition, there are some 150 Friendly and Collecting Societies devoted solely to 'industrial' life assurance[1] throughout the country, but these are not part of the insurance market proper.

Lloyd's

Lloyd's is an association of individual underwriters who group themselves into syndicates. The conduct of insurance business at Lloyd's is regulated by the Committee of Lloyd's, and the affairs of the Society of Lloyd's in its corporate capacity are administered by the Committee under Acts of Parliament. In addition to its insurance activities, Lloyd's maintains a world-wide organization for the collection and diffusion of shipping intelligence (see p. 210). Although in its earlier history the activities of Lloyd's were confined to the conduct of marine insurance business, during the last fifty years there has been built up at Lloyd's a very considerable world-wide market for the transaction of other classes of insurance business.

Insurance Brokers

The market is completed by the insurance brokers, acting on behalf of the insured, who are an essential part of the Lloyd's market and a valuable part of the company market. Many brokers specialize in reinsurance business, acting as intermediaries in the exchange of contracts between both British and oversea companies, and often acting as London representatives of the latter.

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[1] Life insurance for which the contributions are collected by house-to-house visits at intervals of less than two months (a system convenient to weekly wage earners).

Volume of Business

The volume of premium income business transacted by the insurance market during the year 1954 was over £1,000 million.

Over two-thirds of the fire, accident and marine business comes from abroad, partly by direct placing in London and partly from branch and agency offices of insurance companies established in over 100 countries. The profits on this business, together with interest earned on funds maintained by insurance companies locally, have produced in recent years a substantial sum in foreign exchange, of which a large part was represented by dollars. The basic principle of international business is that resources capable of meeting any potential loss are instantly available for application whenever necessary.

Behind this large and international volume of business stand the assets of the insurance companies, aggregating over £4,000 million in addition to substantial reserves of uncalled capital; also the whole of the underwriting trust funds and personal fortunes of Lloyd's underwriters. British insurers hold about £1,500 million in British Government and other public stocks, while a further £1,400 million is invested in ordinary shares, preference shares and debentures in industry, mostly in the United Kingdom.

Building Societies

The principal function of building societies is to supply long-term loans on the security of private dwelling houses purchased for owner-occupation, though loans are occasionally made on the security of commercial and industrial premises and farms. The funds of building societies are derived mainly from the general public who invest in shares or deposits. The amount of share capital is not fixed but may be regulated in accordance with the amount of mortgage business; shares are not dealt with on the Stock Exchange but may be withdrawn in cash if notice is given. The rapid expansion of building society activity in the twentieth century has been accompanied by a concentration of most of the business in the hands of a few very large societies. At the end of 1954 there were in operation a total of 777 societies, whose total assets were £1,867 million. The amount advanced on mortgage in 1954 was £373 million.

IX. TRADE

EXTERNAL TRADE

British oversea markets and sources of supply are world-wide. The wealth and very existence of the British people has, for over a century, depended on oversea trade. British imports consist mainly of food and of the various materials, raw and processed, required by British industries, though finished capital and consumer goods are also imported. British exports are preponderantly of manufactured goods; in 1954 Britain supplied about one-fifth of the total world exports of manufactures.

For over one hundred years the value of goods imported (c.i.f.)[1] into Britain has exceeded that of goods exported (f.o.b.),[1] the balance of imports being more than paid for in normal years by net invisible exports—i.e. the net receipts of interest, dividends and profits on previous investment abroad and net income from shipping, insurance and a variety of financial services—and the net overall surplus has been invested overseas. This is the broad picture: it has been modified in detail over the course of time.

TRENDS SINCE 1938

Changes since 1938 in value, volume, composition and distribution of imports and exports are outlined in the following paragraphs.

Value and Volume

Imports rose in value from £919 million in 1938 to £1,798 million in 1947 and £3,379 million in 1954. The rise in value of exports was from £471 million in 1938 to £1,142 million in 1947 and £2,673 million in 1954.

Calculations of changes in the volume of external trade compared with pre-war cannot be made with precision as the relative values of different types of goods on which the volume figures are based have changed considerably since 1938. Broadly speaking, however, the volume of imports in 1947 was a quarter less than before the war and exports had regained their pre-war volume. The trend in the volume of imports and exports since 1947 is shown in Table 35, where value figures are given from 1938.

Some indication of the increased importance of exports in the national economy is shown by the rise in the proportion of total national income derived from export earnings—from 10·4 per cent in 1938 to 13 per cent in 1947 and 18·2 per cent in 1954. Over the same period the rise in the proportion of expenditure on imports to total national expenditure was smaller—from 18 per cent in 1938 to 19·4 per cent in 1947 and 21·8 per cent in 1954: this rise was caused by the rise in import prices relative to other prices which offset the slight fall in the volume of imports.

Commodity Composition

Changes in the commodity composition of trade are shown in the diagram on p. 299.

The most notable change in exports has been the increased importance of engineering products—e.g., motor vehicles, aircraft, machinery and electrical goods —and the declining, though still considerable, share taken by the older staples such as textiles. In 1938, coal accounted for 8·6 per cent of total exports, textiles for 20 per cent and engineering products for 24·4 per cent. By 1948 the percentages were 2·8 per cent, 18·4 per cent and 35·8 per cent, and, in 1954, 2·5 per cent, 12·2 per cent and 37·8 per cent. While coal exports have been declining, exports of refined petroleum—2·9 per cent of total exports in 1954—have increased, particularly since 1952 when the results of the post-war refinery development began to make themselves felt. Exports of chemicals—7·6 per cent of total exports in 1954—have also increased greatly since the end of the war. Within the category of engineering products, particularly notable gains have been made by road vehicles, aircraft, and certain types of machinery and electrical goods.

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[1] For definition see footnotes (*b*) and (*c*) of Table 35.

Owing to the expansion of the output of domestic agriculture (by about one-half since 1938) and the increased industrial output (by nearly one-third since 1948) Britain relies relatively less than before the war on food imports, but needs a relatively larger supply of imported raw materials. Whereas 47 per cent of total imports in 1938 consisted of food, beverages and tobacco, the proportion in 1948 was only 42 per cent and, in 1954, 39 per cent. On the other hand, the proportion for basic materials rose from 26 per cent in 1938 to 31 per cent in 1948, and was also 31 per cent in 1954. Imports of manufactures in 1954 represented 20 per cent of total imports, nearly as high a proportion as in 1938. Imports of fuels rose from 5 per cent in 1938 to 10 per cent in 1954, mainly on account of increased requirements of petroleum in industry.

TABLE 35

Imports and Exports: Annual Figures (*a*)

	1938	1947	1950	1951	1952	1953	1954
Value (£ million)							
Total imports c.i.f. (*b*) ..	919	1,798	2,607	3,902	3,477	3,343	3,379
Exports of UK goods, f.o.b. (*c*)	471	1,142	2,174	2,582	2,584	2,582	2,673
Re-exports f.o.b. (*c*) ..	61	59	85	127	144	105	101
Volume Index Nos.							
Total imports 1950 = 100	n.a.	89	100	113	103	112	114
Exports of UK goods 1950 = 100	n.a.	62	100	101	95	98	104
Terms of Trade (*d*) 1950 = 100	79	92	100	113	105	96	97

Source: Statistics Division, Board of Trade.

(*a*) 1952 totals have been adjusted for the revised basis of valuing parcel post introduced in 1953: the 1951 totals, if similarly revised, would be increased by £4 million in the case of imports and £32·3 million in the case of exports. Silver bullion and silver coin not in current circulation are excluded from 1938 figures.

(*b*) 'Cost-insurance-freight', i.e. including shipping, insurance and other expenses incurred in the delivery of goods as far as their place of importation in the United Kingdom. Most of these expenses represented earnings by United Kingdom firms.

(*c*) 'Free-on-board', i.e. the cost of the goods to the purchaser abroad, all costs and charges accruing up to the time of placing the goods on board the exporting vessel having been paid by the seller.

(*d*) The ratio of import to export average value index numbers: a rise indicates an adverse movement.

Area Distribution

The area distribution of external trade in 1938 and 1947 in comparison with that of 1954 is shown in the diagram on p. 299.

In 1938, imports from the dollar area represented 23 per cent of the total value of Britain's imports, but in 1947 their share had increased to 34 per cent. Meanwhile, imports from non-sterling member countries of the Organization for European Economic Co-operation (OEEC) and their oversea territories fell from 24 per cent in 1938 to 17 per cent in 1947 and those from the rest of the non-sterling world declined from 21 per cent to 18 per cent. Imports from the sterling area in 1947 took the same share of the total as in 1938, i.e. 31 per cent. By 1954, imports from the dollar area had fallen to 18 per cent and from the rest of the non-sterling world they had declined further, to 13 per cent. The sterling area (see p. 304) meantime increased its share to 44 per cent in 1954 and OEEC countries regained their pre-war share of 24 per cent.

The share of total exports to the dollar area in 1947 was almost unchanged from the 1938 level—about 11 per cent of the total value of exports—but by 1954 their share had increased to 14 per cent. Total exports to the sterling area also rose from 42 per cent in 1938 to 47 per cent in 1947 and 49 per cent in 1954, while total exports to member countries of the OEEC and their dependencies, after declining from 27 per cent in 1938 to 25 per cent in 1947, recovered to 28 per cent in 1954. Exports to the rest of the world fell from 20 per cent of the total in 1938 to 18 per cent in 1947 and 10 per cent in 1954.

THE BALANCE OF PAYMENTS

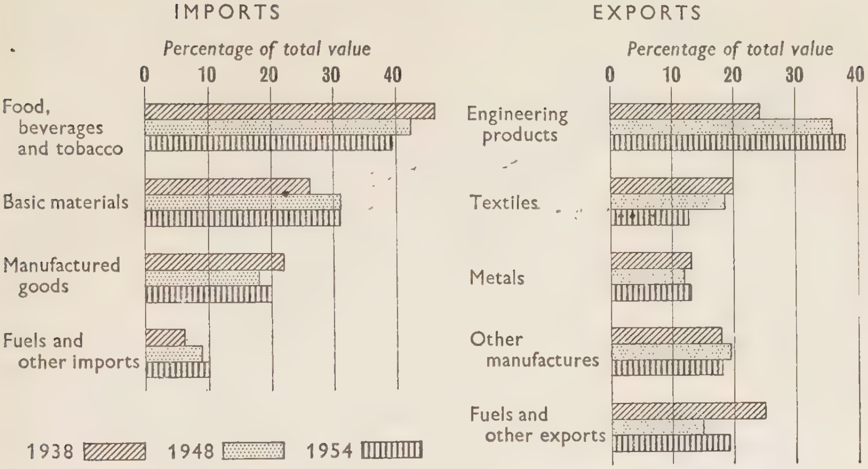
Britain's outstanding economic problem in the post-war period has been its balance of payments.

1. Britain has to earn enough abroad to pay for half the food of its people and more than half the raw materials for its factories. The bill on this account will increase as domestic production and prosperity grow. This means that the pace of internal expansion is inevitably governed by that of external expansion.
2. But Britain has to do more than just pay its way if, together with the rest of the sterling area (see p. 304), it is to build up the reserves that will be needed in a world of multilateral trading and convertible currencies, and if it is to meet its obligations overseas including those voluntarily accepted in relation to promoting development in the Commonwealth and elsewhere. To do these things, it needs a substantial yearly surplus of receipts over payments.

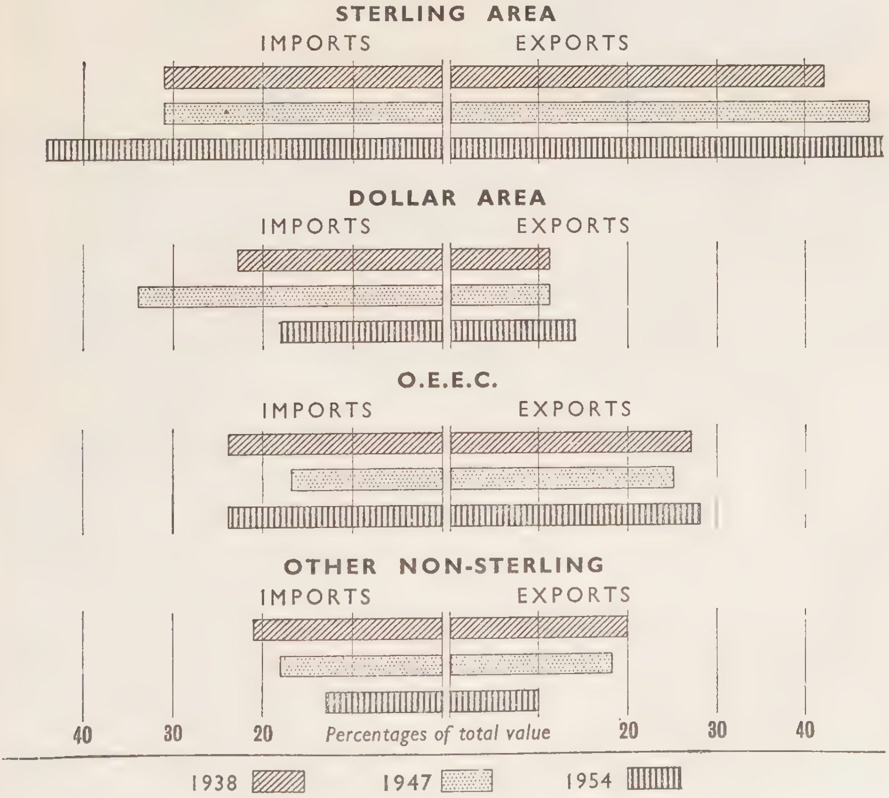
The early post-war years were years of great difficulty. The whole economy had been geared to war production; export trade and foreign assets had been sacrificed in the interests of war (see p. 119); and the adverse movement in the terms of trade swelled the size of the most austere import bill. The balance of payments with the dollar area was specially difficult in view of the disruption of production in other areas and the resulting heavy demand for supplies from the dollar area.

The challenge was met by rapid reconversion of productive capacity to the needs of peace and the mounting of an export drive coupled with severe restrictions of home demand and imports. Assistance on a large scale was obtained from lines of credit granted by the United States in 1945 ($3,750 million) and by Canada in 1946 ($C.1,250 million of which $C.1,185 million was taken up). Even so there was a deficit on current account of £298 million in 1946 and £443 million in 1947. In 1948, when there was a small surplus of £1 million, the flow of dollars began under the

COMPOSITION OF TRADE BY VALUE 1938-54

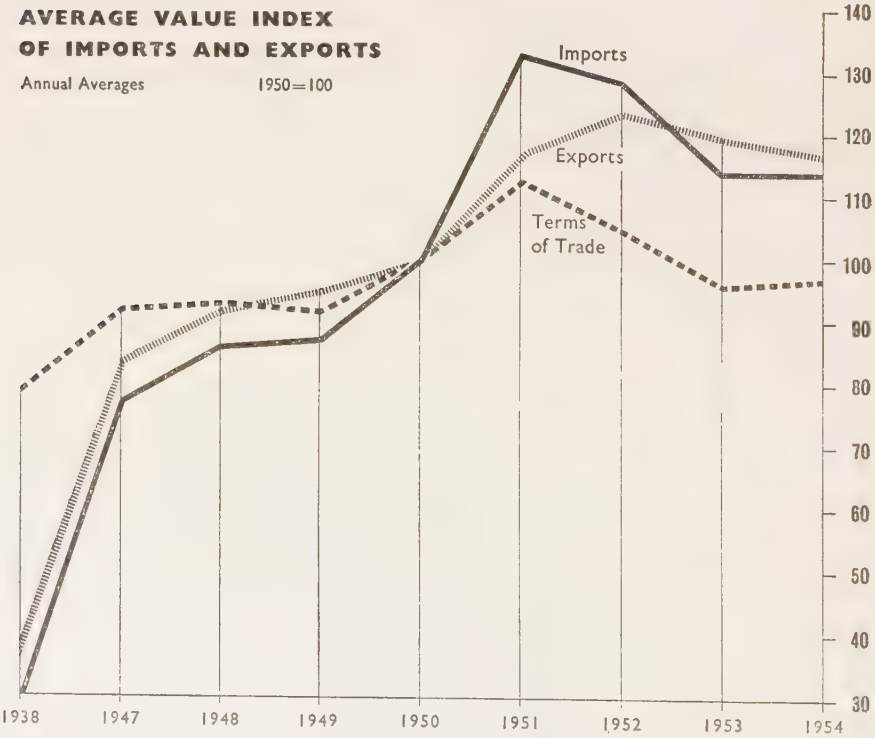


AREA DISTRIBUTION OF TRADE 1938-54



European Recovery Programme (ERP). In 1949, the year when, to protect the reserves, the exchange value of sterling was reduced from $4.03 to $2.80, there was a surplus of £31 million. In 1950, when a trade boom followed the outbreak of war in Korea, the surplus was £300 million and in December allocations of aid to Britain under ERP were suspended. The total amount of ERP aid to Britain was $2,694 million in grants and loans, of which a small part was not received until 1951. But the improvement in 1950 was followed by a serious balance of payments crisis in 1951 when imports were over £1,000 million greater than the year before and there was a deficit of £403 million (including Defence Aid of £4 million). Restrictions had to be imposed on imports and on home demand but these were gradually relaxed as, from 1952, the balance of payments position improved, helped by more favourable terms of trade and United States Defence Aid. Including Defence Aid of £121 million, £102 million and £50 million respectively, there was a surplus of £251 million in 1952, £180 million in 1953 and £186 million in 1954.

The surplus in 1954 masks a change from a surplus (excluding Defence Aid) of £141 million in the first half of the year to a deficit of £5 million in the second half. The main reason for this was that exports, while they attained a record level, did not rise enough to meet the increased cost of imports. There were two reasons for the increased import bill. First, after falling continuously for two years, import prices began to rise again in April 1954 and by the beginning of 1955 were almost 6 per cent higher than a year before.[1] Over the same period, export prices had



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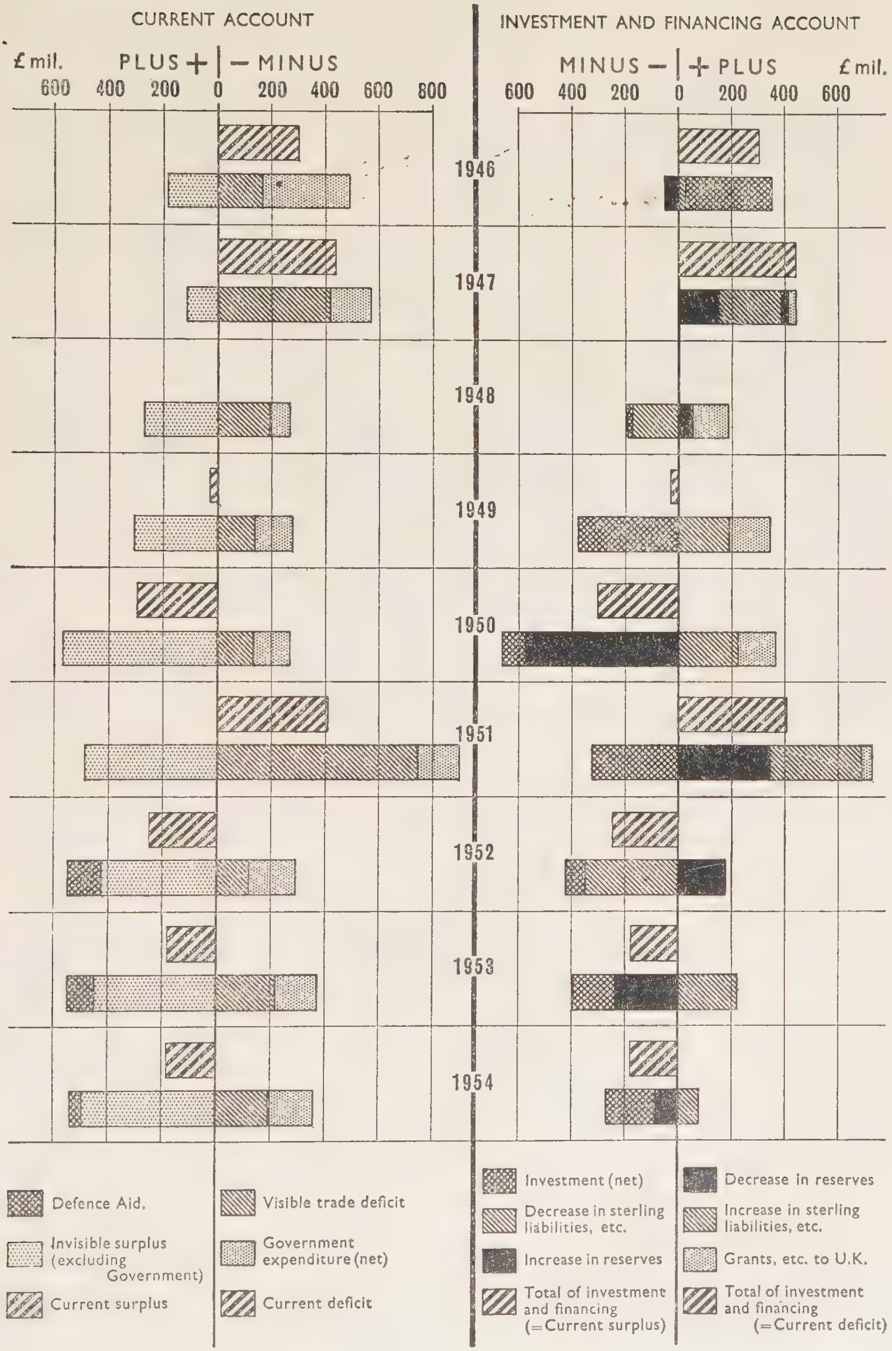
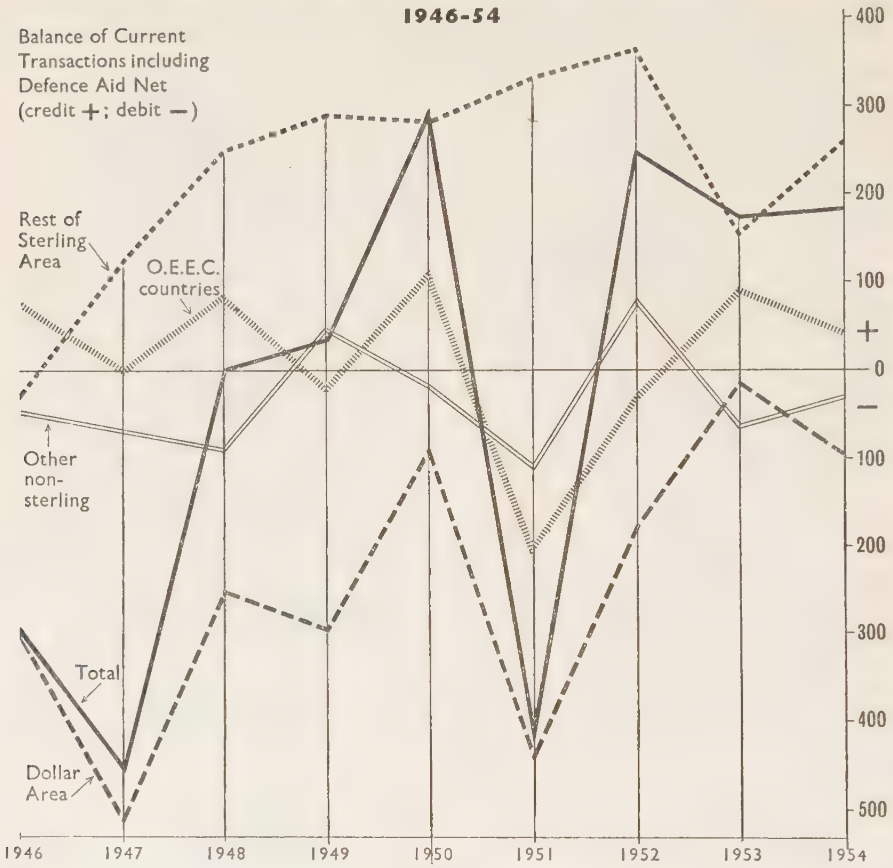
[1] In the summer of 1955 the rise in import prices began to level out.

THE BALANCE OF PAYMENTS



REGIONAL BALANCE OF PAYMENTS ON CURRENT ACCOUNT 1946-54



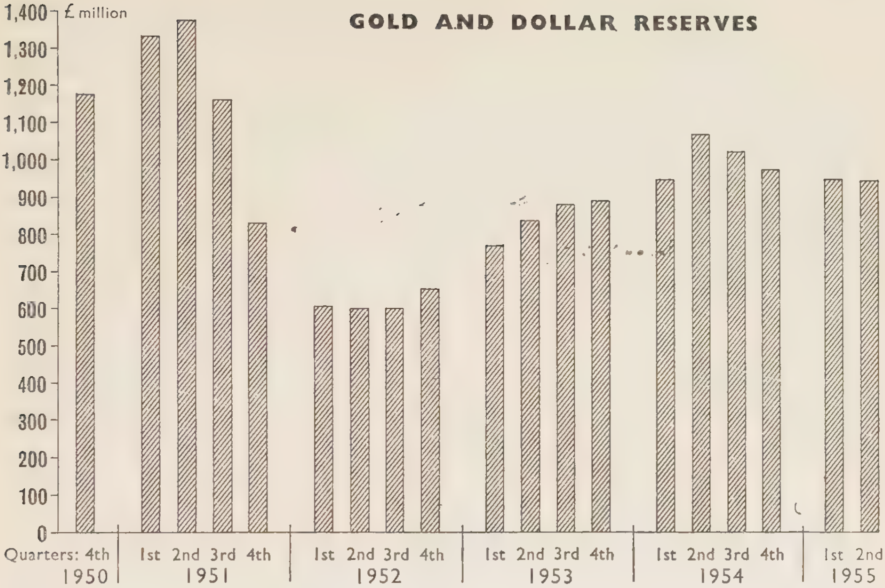
remained virtually unchanged. The course of the terms of trade since 1946 are shown in the diagram on p. 300. Secondly, towards the end of the year there were signs that the volume as well as the prices of imports were rising, reflecting the fact that an expanding economy is bound to demand more imports.

The diagram on p. 301 shows the composition of Britain's balance of payments since 1946 in terms of visible and invisible trade. By 1948, the normal position of a surplus on invisible items had been restored and, except for 1951, this surplus has more than offset the normal deficit on visible items. The regional composition of the balances over the same period is shown in the diagram on this page.

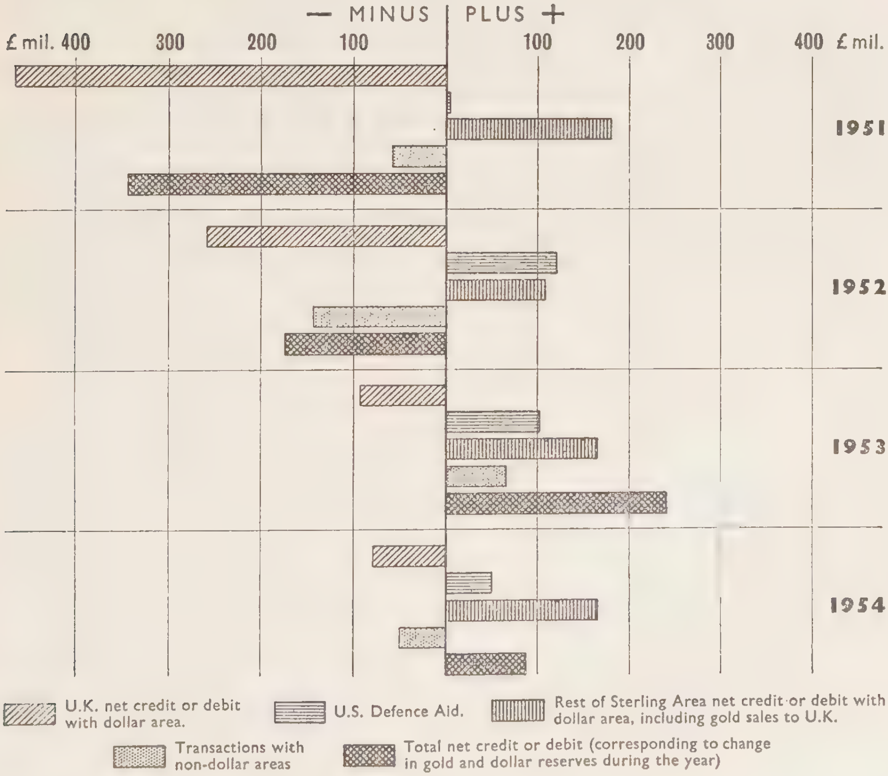
Gold and Dollar Reserves

The course of the gold and dollar reserves is shown in the diagrams on p. 303. These reserves serve most of the needs of the sterling area and not just those of the United Kingdom. A major influence on their level is the surplus or deficit which the sterling area as a whole has with the rest of the world.

GOLD AND DOLLAR RESERVES



ANALYSIS OF CHANGES IN RESERVES



All the Commonwealth countries (except Canada), together with Burma, Iceland, Iraq, the British Protected States in the Persian Gulf, the Irish Republic, Jordan and Libya are members of the sterling area. These countries contain one-quarter of the world's population and do one-quarter of the world's trade. The main feature of the sterling area is that the greater part of the oversea trade of member countries is financed in sterling. They keep their foreign reserves largely in the form of sterling and maintain a fixed relationship between their currencies and sterling. Member countries for the most part sell their foreign currency earnings to the United Kingdom Exchange Equalization Account for sterling and can purchase for sterling the foreign currency they require. Members generally also sell gold in the London Market for sterling, and United Kingdom purchases of gold are also held in the Exchange Equalization Account. The Account's holdings of gold and dollars, therefore, constitute the central gold and dollar reserves of the sterling area. Members have agreed to extensive restraint in the demands for foreign currency, particularly dollars. (South Africa is in a special position as a large gold producer. Although it used to finance its net dollar requirements from the sale of its own gold, making available most of the balance for the central reserves, it now sells most of its gold through London, acquiring sterling with which it can, like other member countries, draw on the central reserves for its dollar requirements.)

All these currency arrangements are voluntary; there are no strict or centralized rules of conduct, the Commonwealth member countries agreeing between themselves at periodic conferences the broad policies to be followed for the strengthening of the reserves. Thus, following the balance of payments crisis of 1951—which affected all the sterling area and not only the United Kingdom—Commonwealth Finance Ministers met in January 1952 to agree on remedial measures. Action was agreed on to bring the sterling area into balance with the rest of the world in the second half of 1952, to stop the drain on the reserves—which had fallen by £550 million in 1951—and to eliminate inflation. These immediate aims were accomplished and the reserves rose from a low point of £602 million in June 1952—to which they had fallen from £1,381 million in June 1951—to £650 million by the end of the year. In 1953, the United Kingdom had a surplus of £44 million with non-sterling countries, and the rest of the sterling area had one of £281 million, so that the whole sterling area's surplus was £325 million and the reserves rose by £240 million. In 1954, largely due to increased payments for imports in the second half of the year, the United Kingdom had a non-sterling deficit of £75 million and the rest of the sterling area's surplus was reduced to £145 million so that the whole sterling area had a surplus of only £70 million. The reserves rose by £87 million.

Monetary Assets and Liabilities

In estimating the improvement in the monetary position of the United Kingdom and of the sterling area as a whole it is necessary to take into consideration not only changes in the gold and dollar reserves, but other changes in what might be described as 'monetary assets and liabilities'. These are made up of items of a very diverse character, but a rough measure of the change in the balance between them is given by the difference between sterling accounts held by residents outside the United Kingdom and the holdings by United Kingdom residents of oversea currencies other than dollars. Table 36 brings together the changes since the beginning of 1951 in United Kingdom net monetary balances including the gold and dollar reserves. Changes in the balance with the non-sterling areas reflect the transactions—including short-term capital transactions—of the sterling area as a whole with the non-sterling world. The figure of changes over all areas, on the other hand, reflects the movement of the monetary assets and liabilities of the United

Kingdom in relation to the oversea world as a whole, including the rest of the sterling area.

TABLE 36

CHANGES IN UK MONETARY ASSETS AND LIABILITIES

£ million

	1951	1952	1953	1954	
				1st Half	2nd Half
Gold and dollar reserves ..	−344	−175	+240	+179	−92
Other monetary balances: Non-sterling areas	−279	+236	+ 30	+ 28	+ 8
TOTAL: NON-STERLING AREAS	−623	+ 61	+270	+207	−84
Monetary balances: Sterling area	− 59	+112	−253	−118	+ 3
TOTAL: ALL AREAS..	−682	+173	+ 17	+ 89	−81

Note. +indicates an increase in assets or a decrease in liabilities.

Over the two and a half years from end-December 1951 to end-June 1954, the monetary position of the United Kingdom improved by £279 million and that of the sterling area as a whole by £538 million, but in the second half of 1954 the improvement had been reduced to £198 million and £457 million.

United Kingdom Post-War Aid to Other Countries

As against the aid received from external sources after the war, the United Kingdom made available considerable sums to other countries. Between 1st January 1946 and 31st December 1952 the amount spent by the United Kingdom Government on assistance in the form of loans and grants to other countries, including United Kingdom dependencies, and to international organizations was £1,504 million. Loans and grants received by the United Kingdom in the same period amounted to £2,556 million.

Oversea Investment

With the progress of post-war recovery, Britain has been able to resume its role as a provider of funds for investment in development overseas, particularly in the Commonwealth. Thus, between 1947 and 1954, the Governments of member countries of the Sterling Area Commonwealth raised loans in London totalling about £90 million, while Governments of United Kingdom dependencies raised loans totalling some £120 million. Private borrowing in the London market for Commonwealth development has increased in recent years, Capital Issues consent (see p. 293) having been given to applications totalling £40 million in 1953 and £48 million in 1954. Development in the Sterling Area Commonwealth is also being assisted through the Commonwealth Development Finance Company Ltd. (see p. 293), which, by 31st March 1955, had invested or committed £9·75 million. For the same purpose, the United Kingdom Government has agreed to allow

£10 million a year for six years to be available for Commonwealth investment from its contribution to the International Bank (releases totalling £14 million had been agreed to the end of 1954), and, in 1953, it granted a credit of £10 million to Pakistan.

Private capital from Britain going directly into private oversea enterprises and the ploughing back of profits from existing undertakings have, of course, always represented an important element in Commonwealth development, although it is not possible to measure the extent with any accuracy, since only those investments which involve raising new money are subject to any control. In the case of Canada—a dollar country—where, as with all non-sterling countries, United Kingdom investment requires Exchange Control approval as well as Capital Issues consent where new borrowing is involved, participation by United Kingdom investors in economic development has been facilitated in various ways, and private investment in Canada was authorized to the extent of £37 million in 1953 and £49 million in 1954. In addition, the investment of smaller amounts in the United States and other foreign countries has been authorized: in 1954 applications were approved for the investment of £29·7 million in the United States, £15.7 million in Europe and £6·7 million in other countries. A credit of £10 million was granted to Persia in 1954.

It has recently been estimated that the average figures for United Kingdom long-term investment overseas (excluding inter-Government lending, but including United Kingdom Government loans for commercial projects and borrowing by oversea Governments in the London Market) are:

	Annual averages in £ million rounded to 10	
	1946–53	1951–53
UK gross investment overseas	210	220
Less:		
UK disinvestment overseas; and oversea net investment in the United Kingdom ..	90	40
UK net investment overseas	120	180

Current Policies

The current trade and payments policy of the United Kingdom and the Sterling Area Commonwealth countries has been worked out at a series of conferences. There are three main objectives: (1) the maintenance of a strong balance of payments position and the strengthening of the reserves; (2) sound internal policies on which 'depend the purchasing power of money, the cost of living and the ability to sell exports in increasingly competitive markets'; and (3) the development of resources, with particular emphasis 'on the development of those resources which directly or indirectly contribute on an economic basis towards improving the balance of payments of the sterling area'. In the matter of financing development, the United Kingdom has undertaken to make a special effort in the knowledge that this, added to other oversea commitments on account of military expenditure, debt repayments, etc., requires an increase in current account earnings.

These objectives are being pursued in the context of proposals designed 'to bring about the widest possible system of multilateral trade and payments, the reduction and progressive elimination of import restrictions, and the convertibility of sterling and other important currencies'. These proposals, known as the 'collective approach', are based on the need for 'collective action by debtor and creditor countries to bring about a balance in the world economy on the basis of "trade, not aid"'. Considerable progress has been made towards freer trade and payments; in facilitating these objectives, convertibility of currencies will be a major instrument and not an end in itself. Necessary conditions for further decisive action have been stated to be: (1) progress in Europe in moving from the present European Payments Union to a system in which some countries' currencies will be convertible but not those of others; (2) the consolidation and furthering of the real progress of the sterling area towards useful development, internal balance and adequate foreign exchange resources; (3) the carrying forward of the United States Administration's trade liberalization policies, so that the dollar-earning opportunities of other countries can be increased; and (4) the development of more elastic methods of co-operation between the International Monetary Fund and its members.

CONDUCT OF EXTERNAL TRADE

The export trade and most of the import trade of the United Kingdom is conducted by private firms.

Methods of export trading vary considerably, according to the firm, the industry, the product and the market. A good deal of United Kingdom export trade, especially of the smaller manufacturing firms, is conducted through export merchants in the United Kingdom; many firms, however, sell to importers and consumers abroad through their own agents or resident representatives in the countries concerned; in other cases, sales are made through a firm's own branch office, distributing organization or subsidiary sales company established in oversea markets.

Similarly, in import trade, many large firms engaged in manufacture or domestic trade buy directly from oversea suppliers, while smaller firms may find it more convenient to buy through intermediaries such as import/export houses, commission agents, and the representatives of oversea firms.

Commodity Markets

Britain is the traditional centre for marketing many of the world's basic commodities. These markets were largely closed during the war but they have gradually been re-opened and are rapidly regaining their previous position. Among the more important are the London Rubber Market, the London Wool Exchange, the London Metal Exchange and the Liverpool Cotton Exchange. Apart from the import of goods for home consumption, many transactions are arranged between buyers and sellers from other countries and the British markets play an important part in merchanting and distributing commodities throughout the world.

Re-export Trade

Re-exports are goods which are exported (*a*) in the condition in which they are imported or (*b*) after having undergone minor operations—e.g., simple blending, husking, repacking—which leave them essentially unchanged. For some hundreds of years Britain has been an important centre of re-export trade though, over the past forty years, its importance relative to total United Kingdom export trade has declined. The greater part of United Kingdom re-export trade has always been in raw materials and foodstuffs, e.g., wool, rubber, tea, non-ferrous metals and furskins. Traditionally, re-export commodities are imported from Commonwealth countries and re-exported to countries in Europe.

London's Part in the Finance of International Trade

In the financing of international trade, both visible and invisible, the part played by the City of London is of outstanding importance. By a process of evolution through the centuries 'the City' has developed an efficient and adaptable organization of trade and financial services capable of meeting the needs, not only of Britain, but of the world in general. The supremacy of London in this respect derives from a number of factors—historical, geographical and economic—as well as the technical efficiency and low cost of its services. In the nineteenth century the rapid growth of British industry, commerce and shipping under the stimulus of the industrial revolution made Britain the market as well as the workshop of the world. It became the site for the chief world markets in raw materials, freight, insurance, and precious metals. At the same time British capital was invested in oversea countries to assist their development, increase their output and exports, and provide markets for manufactured goods. London became the chief supplier of capital for many Commonwealth and foreign governments and a centre for entrepot trade proceeding to and from the growing industrial areas on the continent of Europe and in North America. In course of time the pound sterling and the sterling bill of exchange developed into the principal form of money for transactions between one country and another in all parts of the world. Britain is now the banker for the sterling area and sterling is used in the finance of nearly half the world's international transactions.

Side by side with these developments a sound commercial banking system and a flexible system of central bank control have been built up, while specialized institutions such as discount houses, merchant banks, accepting houses, the Stock Exchange, investment trusts and finance corporations have evolved to satisfy particular needs of short- or long-term finance (see pp. 288–95). The facilities provided by merchant banks and accepting houses, for example, have long been used to finance shipments of goods not only to and from Britain, but between any two outside countries.

Despite the dislocations of two world wars and the growth of economic nationalism in the twentieth century, London has retained its supremacy as an international centre for the provision of financial and trade services. Its reputation has been enhanced in recent years by the recovery in the sterling area's gold and dollar reserves, the improvement in Britain's balance of payments and the removal of restrictions on trade and financial operations.

Government Assistance to Oversea Trade

The United Kingdom Government provides a service of information and advice to merchants and manufacturers in the export trade. The Government Department most concerned is the Board of Trade, which calls upon the assistance of oversea representatives. At each Embassy or Legation there is always an officer of high rank, a Minister, Counsellor or First Secretary (Commercial), who specializes in commercial matters. These officers direct the commercial activities of Consular officers in their respective territories.

At important centres in the Commonwealth there are Trade Commissioners who are directly responsible to the Board of Trade.

Oversea officers regularly report on local economic and commercial conditions, pay special attention to local demand for particular commodities, and generally assist the exporter to overcome the difficulties he encounters in trade with the country in question, particularly those arising out of governmental regulations. These officers indicate potential demand for United Kingdom products, advise about methods of trading with particular areas, and seek out and pass on all opportunities for export business and inquiries for United Kingdom goods. Assistance is also given to United Kingdom exporters in finding agents and likely importers. From the records the Department keeps in London, brought up to date by reports from its oversea officers, it can provide information concerning any country on:

(1) prospects for United Kingdom exports and requirements of particular markets;
(2) governmental regulations affecting trade, including import restrictions and tariffs and duties on particular commodities;
(3) methods of trading;
(4) goods most likely to sell;
(5) local tastes and preferences in design;
(6) the probity and influence of firms with which an exporter contemplates entering into business relations.

Export Credit Insurance

The Export Credits Guarantee Department is a Government agency run on commercial lines to provide insurance for United Kingdom exporters and merchants against the main risks of financial loss incurred in oversea trading. These facilities have been developed over a period of more than thirty years, and the Department now underwrites some £500 million worth of insurance a year, for more than 3,800 policyholders. The Department is obliged to conduct its business on a self-supporting basis, taking one year with another, and cannot therefore be regarded in any way as a provider of subsidies to exporters.

The risks covered include insolvency or protracted default of the buyer, action by the buyer's Government which blocks or delays transfer of payment to the United Kingdom, imposition of new import licensing restrictions in the buyer's country, war between the buyer's country and the United Kingdom, cancellation or non-renewal of a United Kingdom export licence, or 'any other cause of loss occurring outside the United Kingdom and not within the control of the exporter or the buyer, and not normally insurable with commercial insurers'. Cover may commence from date of contract or (at lower premiums) from date of shipment.

There are three main types of export insurance policy:

1. *Short-term policies* normally covering goods sold on terms of up to six months credit. The exporter insures the whole of his trade, or the whole of his trade with an agreed group of markets, for the twelve months covered by his policy. For certain engineering goods this type of cover is extended to goods sold on maximum credit terms of up to two years. Cover is also available for goods of foreign origin sold by a United Kingdom merchant to third countries, provided this trade does not conflict with direct United Kingdom exports.
2. *Medium-term policies* which cover capital and other goods sold on credit terms exceeding two years. Specific policies are negotiated for each individual contract.
3. *Dollar market policies* for North America and the Dollar Account countries of Central and South America. The policies listed above cover risks affecting payments under a contract of sale: the dollar market policies are designed to reduce to manageable size the special risks of loss in breaking into these markets. The exporter insures against a percentage of the loss which may

result if market surveys, advertising or sales promotion campaigns, or stockholding, do not produce sufficient revenue to defray their cost. A similar but more extensive form of insurance is provided by 'Joint Venture' policies.

In the case of all the Department's policies, the exporter or merchant is required to retain an interest in the debt or risk involved and, consequently, guarantees are given up to a maximum of 85 to 90 per cent. Premium rates are assessed separately for each country, and vary according to the risks and the terms of payment.

Trade Fairs

The British Industries Fair (BIF) is the largest national trade fair held regularly in any country. It was first held in 1915, and has since been an annual event except for a break in 1925 and again from 1940 to 1947. Since 1947 it has consisted of exhibits by manufacturers within the United Kingdom and representative displays by the Governments of Commonwealth countries.

Part of the BIF is held in London; and part is held simultaneously at Castle Bromwich, Birmingham.

Under the British Industries Fair (Guarantees and Grants) Act, 1954, the responsibility for the BIF has been transferred as from 1955 from the Board of Trade to a non-profit-making company (British Industries Fair, Ltd.) whose board is nominated by trustees representative of industry. The initial working capital for this company is guaranteed by the Government for a period of five years. Management of the Birmingham section of the fair remains with the Birmingham Chamber of Commerce.

In addition to the British Industries Fair, which serves industry generally, there are many specialized trade fairs held in the United Kingdom. The most important of these, such as the Motor Show, the Mechanical Handling Exhibition and the Radio and Television Show, attract large numbers of the public as well as many trade buyers from home and overseas. These specialized fairs provide an important means of advertising and selling British goods.

United Kingdom manufacturers show their goods at most of the large international trade fairs throughout the world. For example, more than 450 United Kingdom firms were represented at the 1955 Milan Fair and more than 330 at the 1955 Brussels Fair. At the more important of these international trade fairs there is an official United Kingdom export promotion unit to deal with trade inquiries. In addition to taking part in these international events, there are specially organized displays of British goods: a successful trade fair of this sort was organized in Zürich in 1953 by the British Chamber of Commerce for Switzerland, and the Federation of British Industries organized a British Trade Fair in Baghdad in 1954, and in Copenhagen in 1955.

Tourist Trade

During post-war years the tourist trade has become an important source of foreign currency earnings. In 1954 oversea visitors spent in the United Kingdom the equivalent of £95·5 million, of which some £34 million was in dollar currency. The total number of visitors in 1954 was 901,000, an increase of more than 100 per cent on the 1947 figure and of 85 per cent on the figure for 1937, the peak year before the war.

The *British Travel and Holidays Association*, which is a Government-sponsored body, is concerned with the promotion of the tourist industry, particularly by means of publicity overseas. The Association was formed in April 1950 by the merger of the

British Travel and Holidays Board and the Travel Association. Its work is directed by a Board consisting of a chairman and 23 members. The President of the Board of Trade appoints the Chairman and eight members, the Council of the Association elects seven members, the Scottish, Welsh, and Northern Ireland Tourist Boards between them appoint four members and the Board itself has power to co-opt four members to represent tourist interests not otherwise covered. The Association runs a Tourist Information Centre (to which all correspondence should be addressed) at 64–65 St. James's Street, London, S.W.1, and has oversea offices in New York, Chicago, Los Angeles, Toronto, Paris and Frankfurt.

There are no restrictions on the amounts of sterling that United Kingdom tourists visiting sterling area countries may take with them. For visits to non-sterling countries outside the dollar area United Kingdom tourists are entitled to take a basic foreign currency allowance of £100 per twelve-month period. Special arrangements apply to Norway, Sweden, Denmark, Greenland, and the Faroe Islands: United Kingdom tourists visiting these countries are allowed all reasonable amounts of currency.

Changeover from State Trading to Private Trading

In the immediate post-war years nearly all the principal imported foods and raw materials and some other goods were bought wholly or mainly on Government account, and the Government was also the sole purchaser of nearly all domestically produced food and certain raw materials such as flax and timber. By 1951 a considerable number of major commodities including wool, rubber, tin, woodpulp, hardwoods, hides and skins, flax and leather, had been restored to private trade. Since 1951 the changeover from state trading to private trading has proceeded rapidly. Government monopoly oversea purchasing, which was responsible for about half the United Kingdom's total imports in 1951 (about two-thirds of food imports and about one-quarter of raw materials) was, by 1954, confined to two foodstuffs—raw sugar and bacon—and one industrial commodity—jute goods. These three items accounted for only about 5 per cent of total imports in 1954. In July 1955 the Government announced its plans for ending State trading in sugar.

Concurrently with the process of reversion from public to private trading, import licensing restrictions have been substantially eased, so that for most of the principal foodstuffs and raw materials no limit is now imposed on the quantity or value of imports from any country or, in some instances, from a wide range of countries.

The principal quantitative controls still in operation on external trade are (1) currency exchange control; and (2) import and export licensing.

Exchange Control

Exchange control, i.e. control over the purchase and sale of gold and foreign currencies, was introduced at the outbreak of war in September 1939. The legal basis was at first the Defence (Finance) Regulations issued under the Emergency Powers (Defence) Acts, but in 1947 most of these temporary war-time powers were embodied in permanent legislation in the Exchange Control Act, 1947.

Exchange control does not affect transactions wholly within the sterling area. It is imposed only on: (*a*) transactions between residents within the sterling area and residents outside; and (*b*) transactions conducted in sterling between persons resident outside the sterling area. Although the main structure of exchange control has continued intact since 1939, relaxations in its operation have been made in recent years.

In March 1954 the facility which certain countries possessing transferable accounts have enjoyed of settling current transactions between each other—as well as with sterling area countries—in sterling was extended to virtually all non-dollar countries. The facility now applies to capital as well as to current transactions.

Exchange control policy is the responsibility of the Treasury, but most of the administration is in practice carried out by the Bank of England as agent of the Treasury—and in turn the Bank of England has delegated to the commercial banks a wide variety of powers to deal with applications.

Foreign Exchange Market

From the beginning of the war until December 1951 the purchase and sale (both spot and forward) of the more important foreign currencies by residents of the United Kingdom for authorized transactions, was permitted only at official buying and selling rates which were maintained at a narrow margin either side of the parity of those currencies against sterling. From 17th December 1951 wider spreads, between which spot exchange transactions could take place, were introduced and forward rates were entirely freed from restrictions, making it possible to reopen the Foreign Exchange Market on a limited scale.

In May 1953 there was a resumption of arbitrage transactions (i.e. the purchase of a currency in one market and its sale in another, taking advantage of a difference in rates between the two markets) between London and the principal European exchange markets in the more important European Payments Union currencies.

London Gold Market

The London Gold Market, which had also been closed since the beginning of the war, was reopened on a restricted basis as from 22nd March 1954. The Market operates under the general supervision of the Bank of England.

Dealings in the Market are conducted in sterling, but the reopening of the Market does not make sterling more convertible into other currencies. Gold transactions in the Market on account of non-residents are settled in sterling which is the equivalent of dollars, i.e. payments are made into American, Canadian or Registered Accounts[1] all of which are exchangeable for dollars. Purchases of gold for residents of the sterling area require prior permission of the Bank of England and are strictly limited.

Import and Export Control

The Import, Export and Customs Powers (Defence) Act, 1939, empowers the Board of Trade to make Orders prohibiting or regulating the import or export of goods. The powers of both import and export control derive from the same legislation, but the purpose and mechanism are quite distinct.

Import Controls

Although goods can be imported into the United Kingdom only under licences issued by the Board of Trade, an importer does not have to apply for a licence every time he wishes to import anything. A large number of goods can be imported under the Open General Licence, which authorizes any person in the United Kingdom to import a number of specified commodities without any limits of quantity or value, either from anywhere in the world or from specified countries or groups of countries. Similarly, for a wide range of goods, individual traders are granted Open

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[1] Registered Accounts may be opened by any non-resident (other than American or Canadian). They may only be credited with the proceeds of sales of gold or dollars or with transfers from American or Canadian Accounts.

Individual Licences which allow them to import unlimited amounts of the goods from any country or from specified countries or groups of countries. Nearly all the United Kingdom's imports from the sterling area, a very large part (85 per cent at 1st June 1955 in the case of member countries of the Organization for European Economic Co-operation) of its imports from the rest of the non-dollar world, and about one-half of its imports from the dollar area are admitted under Open General Licence or Open Individual Licences.

When an importer wishes to bring in goods not covered by the unrestrictive Open Licensing arrangements, the Board of Trade decides whether he should be granted a licence to import a limited value of the goods in accordance with one of three basic methods of determining who should be allowed to import goods and in what quantities. These methods are:

(1) *ad hoc* consideration of applications for licences;
(2) apportionment of quotas among importers;
(3) apportionment of quotas among exporters to the United Kingdom by arrangement with the Governments of the exporting countries concerned.

The choice of method depends on the circumstances of the particular trade under consideration.

Import and exchange control are closely linked. All holders of import licences and anybody who wishes to import goods admissible under the Open General Licence are granted the currency required to pay for their imports.

Export Controls

For the most part, United Kingdom exports are not subject to any Government control or direction. Such controls as are in operation are imposed for the following reasons:

(1) to control goods of strategic importance;
(2) to conserve or regulate the distribution of scarce materials;
(3) to assist exchange control operations in preventing exports of capital in the form of valuable goods (e.g., diamonds);
(4) to control the re-export of materials purchased with dollars;
(5) to control the export of goods the prices of which have been subsidized for consumption in the home market;
(6) to prevent the export of works of art of national importance.

The operation of export licensing control is such that goods are freely exportable to all destinations unless there is a specific ban on their export without licence. Normally, individual licences are required for specific consignments of goods subject to export licensing control, but in a few cases Open General Licences are issued. In other cases bulk licences are issued to permit exports of specified quantities of controlled goods within a given period.

In recent years export controls have been greatly reduced and now cover only a small proportion of total shipments. The position is continually under review and relaxations in control are made whenever circumstances permit. Following improvements in the supply position, the majority of goods now subject to control are of strategic importance. Certain of these strategic goods may be exported without licence to the Commonwealth (other than Hong Kong), the Irish Republic and the United States of America, but exports of such goods to other destinations are subject to export licensing control. All exports to China and Macao are subject to export licensing control, and all exports to North Korea, North Viet Nam and Tibet are prohibited.

INTERNAL TRADE

The internal trade of the United Kingdom can be divided into two broad categories: trade in raw materials, capital goods and intermediate products (such as steel plates) which do not reach the hands of the public; and trade in consumer goods. An account of the supply and distribution of consumer goods is given below.

Methods of distribution are varied and complex. On the basis of some pre-war researches,[1] however, it would appear that 10 to 15 per cent of sales (by value) are made to consumers through producers' own selling organizations, including their own retail shops, and in about half the remaining sales the producers sell direct to retailers. Where wholesale channels exist, they take a number of forms. Fish, for example, is auctioned at ports mainly to port wholesalers to sell to inland wholesalers at certain main distributive centres, who in turn sell to retailers, although a significant number of retailers buy direct from port wholesalers. Most producers of fresh fruit and vegetables (many of whom are small growers) market their products through a wholesale market where most of it is handled by selling agents on a commission basis. Wholesale distribution of consumer goods is not, however, generally centralized.

WHOLESALE TRADE

Returns published in 1955 in the *Census of Distribution and Other Services 1950* were made by 55,701 wholesale establishments—about 92 per cent of the total number. The returns show that 790,266 persons were engaged in wholesale trade, and that the wages bill, excluding the incomes of proprietors, was £297,666,000. Table 37 summarizes these returns with regard to wholesale establishments by method of trading.

The greatest numbers of wholesale establishments are found in the clothing, footwear and textiles trade (7,019), and the groceries, confectionery and drinks trade (6,946).

RETAIL TRADE

Retail outlets of the United Kingdom can be classified into four types: (*a*) the independent shop, (*b*) the departmental store, (*c*) the multiple shop, and (*d*) the co-operative society. There is an increasing number of self-service shops in the United Kingdom. Street and market traders, though relatively numerous, are not believed to do a large volume of business.

Types of Shops

One-half of the retail trade of the United Kingdom is handled by independent shopkeepers in ordinary small retail businesses consisting of a single shop or a few shops. Such retailers usually serve customers in the immediate neighbourhood, often supplying a great variety of commodities. Some specialist shops, however, have a widespread and even an international clientèle.

A departmental store is a shop having a number of departments for different types of goods, while a multiple shop is a branch of a firm which owns or controls a considerable number of similar retail outlets. Some shops are multiple departmental stores, i.e. they belong to a firm running several departmental stores. Similar to these in their wide range of goods are the variety chain stores, which

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[1] An indication of the general pattern of distribution before the war is given in some pioneer unofficial studies, including *The Distribution of Consumer Goods*, by James B. Jefferys, published in 1950.

TABLE 37

Wholesale Establishments in Great Britain in 1950

Method of Trading (Revised Figures)

Method of trading (*a*)	Number of Establishments	Sales (*b*) £'000	Number of Persons engaged (*c*)	Wages and salaries £'000
Wholesale merchants (*d*) ..	43,056	5,204,124	595,156	215,660
Export merchants (*d*) ..	1,673	874,876	21,668	11,674
Import merchants	2,091	789,394	26,939	13,954
Invoicing agents	3,372	2,626,171	46,190	19,623
Non-invoicing agents ..	3,264	1,081,588	15,180	6,919
Government departments ..	58	1,717,702	6,404	2,657
Marketing boards	229	458,613	4,389	1,449
Purchasing branches of oversea firms	158	98,563	1,615	878
Wholesaler-producers (*e*) ..	1,563	197,824	55,665	18,124
Warehousing	237	347	17,060	6,728
Total	55,701	13,049,202	790,266	297,666

Source: *Census of Distribution and Other Services 1950.*

(*a*) Classified according to the main aspect of each business.

(*b*) Higher than the total value of the physical goods concerned in the trade recorded: i.e. including goods sold more than once at wholesale.

(*c*) Including working proprietors.

(*d*) Includes some selling establishments operated by manufacturers. Full information about manufacturers' distributive activities can be found only by using the Census of Distribution Report in conjunction with the Census of Production Report for 1950.

(*e*) Engaged in trades where firms undertake processing as well as merchanting: e.g., fish curing, tea blending, coffee roasting and perfumery manufacture.

are multiple shops of a special kind. Their main features are the sale of a wide variety of goods under one roof, usually with low price limits, and the standardization of layout and general appearance.

Co-operative Societies

Retail co-operative societies are voluntary, non-profit-making associations engaged in retail trade and controlled by their members, who are also their customers. Any operating surplus is returned annually to members as a dividend. Dividends are proportionate to the value of purchases made in the year and not to investment in the society.

Retail co-operative societies sell to the general public as well as to their own members, but membership is open to anyone willing to pay a small deposit on a minimum share and entitles the member not only to a dividend but to an equal voice with other members in deciding the society's policy. Investment of individual members is limited to £500 and the rules of some societies may fix lower limits. Only a low fixed interest is paid.

Retail co-operative societies are free to buy where they will or to produce their own goods, but, in order to secure the advantages of large-scale production and trade, they have collectively established wholesale and production societies.[1]

At the end of 1954 there were 1,033 retail co-operative societies registered under the Industrial and Provident Societies Acts, but nearly a quarter of the entire co-operative membership (11,272,000) was provided by the eight largest societies, each of which had a membership of over 115,000. The total sales of the retail societies in 1954 were £772 million, about 7 per cent of the total national expenditure on consumer goods and services.

The 1950 Census of Distribution

The reports of the Census of Distribution for 1950, published in 1953 and 1954, gave details of retail trade and certain allied service trades in Great Britain in 1950.

The reports cover 684,764 establishments and 542,299 organizations (an organization is an undertaking operating one or more establishments) whose chief activity is selling goods or providing certain services to the general public. Included in this total are 531,143 retail establishments employing 2,265,291 persons (including working proprietors and unpaid family workers) with a turnover of nearly £4,923 million and a wages bill of over £392 million. The other trades covered include catering (turnover £277 million), hairdressing (£34 million), repairing for the general public (£25½ million), and the motor and cycle trades (£546 million). Catering as part of the business of a hotel or public house is not included. Table 38 classifies establishments by kind of business, and shows figures for the main retail and service trades. In addition there were over 3,500 central offices and warehouses belonging to the larger organizations, employing 132,000 persons, with a wages bill of £47 million. Owing to some non-response in the census these figures are not complete, but the results for the retail trade, apart from the service trades, are estimated to represent about 91 per cent of the total number of retail establishments and about 95 per cent of the total turnover.

Forty-eight per cent of the retail trade was done by organizations consisting of a single establishment. On the other hand 30 per cent was done by 534 large organizations with annual sales of over £1 million.

The retail businesses are not all shops. The census found 531,143 retail (excluding service and motor trade) establishments of which 467,700 were fixed shops, but the total also includes 22,800 market traders, 6,600 street traders, 13,800 traders at coal yards and other yards making retail sales, and smaller but still considerable numbers selling by other methods. The business done by market and street traders was usually very small (under £2,000 a year) and though it is not claimed that all street traders were included, the omissions are not believed to have made a significant difference to the total figures. The retail shops included 483 self-service shops with the high average turnover of £35,000; 478 of these establishments are classified in the grocery group.

CONTROLS ON CONSUMER GOODS

In recent years most of the controls on consumer goods surviving after the war have been swept away. The last remnant of the war-time food rationing system—the rationing of meat and bacon—was ended in July 1954. The dismantling of rationing schemes has been accompanied, as a rule, by the removal of retail price controls. The proportion of consumer outlays subject to price control diminished

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[1] The two major wholesale societies are the Co-operative Wholesale Society Limited and the Scottish Co-operative Wholesale Society Limited.

TABLE 38

RETAIL ESTABLISHMENTS BY KIND OF BUSINESS IN 1950

Kind of business	Number	Sales £'000	Persons engaged	Wages and salaries £'000
Retail Trades				
Grocery group	129,345	1,170,723	478,398	68,102
Other food retailers	126,701	917,016	480,473	82,887
Confectioners, tobacconists, newsagents	66,312	455,085	224,941	14,931
Clothing group	89,046	885,178	384,425	74,330
Hardware group	30,223	218,341	111,008	20,960
Booksellers, stationers	9,528	68,328	51,838	7,904
Chemists' goods, photographic goods group	16,733	158,606	82,232	18,936
Furniture group	16,086	259,006	90,453	23,144
Jewellery, leather and sports goods group	13,944	79,766	42,972	7,927
General group:	1,665	471,343	198,659	48,878
including:				
Departmental stores	*529*	*308,339*	*129,304*	*33,787*
Variety stores	*913*	*106,431*	*52,498*	*10,316*
Coal, builders' materials, corn group	20,137	186,342	82,128	17,382
Other non-food retailers	11,423	53,196	37,764	6,700
TOTAL	531,143	4,922,930	2,265,291	392,081
Service Trades				
Catering group	66,562	277,070	399,073	58,189
Hairdressers	29,827	34,333	75,760	9,112
Repairers group	22,527	25,547	44,175	4,558
Motor vehicles, cycles and accessories group	10,578	228,711	55,618	14,485
Motor vehicle repairers, garages group	18,403	317,392	143,684	36,856
TOTAL	147,897	883,053	718,310	123,200

Source: *Census of Distribution and Other Services 1950.*

from about 70 per cent in 1951 to about 40 per cent at the beginning of 1954; by the end of the year it was a considerably lower proportion. The price of bread, milk and potatoes continues to be controlled. In the case of bread and milk this is because of the continuation of the consumer subsidy; in the case of potatoes it is because of the existing fixed price and guarantee system (see p. 150).

The most important price control directly affecting the consumer and still in force is that on rents (see p. 355).

Domestic Fuel

With certain exceptions,[1] the supply of solid fuel for domestic use is restricted under the Coal Distribution Order, 1943, by the imposition of 'maximum permitted quantities'. These are not rations and provide no assurance that supplies will be sufficient for everyone to purchase the maximum amount allowed. For the purposes of control, solid fuel is usually divided into two groups: house coal and boiler fuel (largely anthracite). It is usual, in defining the maximum permitted quantities under each of these two headings, to give a total figure for the year from May to April inclusive, and separate figures for the summer months, May to October, and the winter months, November to April. Maximum permitted quantities vary also between the northern and southern halves of the country, the northern regions being allowed more coal than the southern regions.

Households which use solid fuel for cooking or have other special needs can obtain fuel additional to the maximum permitted quantity on grant of a licence from the local fuel office of the Ministry of Fuel and Power.

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[1] The following fuels are free from restriction: coke, wood, anthracite duff, washery slurry, uncarbonized ovoids and briquettes, certain classes of coal not classified as 'house coal' because of unsuitable size or quality, and the carbonized smokeless fuels 'Coalite' and 'Rexco'.

X. SOCIAL WELFARE

STATE AND VOLUNTARY SERVICES

In Britain the State is now responsible, through either central or local government authorities, for a range of services covering subsistence for the needy, education and health services for all, housing, employment or maintenance, the care of the aged and the handicapped, and the nutrition of mothers and children, besides sickness, maternity and industrial injury benefits, widow's and retirement pensions and family allowances. Public authorities in the United Kingdom are spending over £2,000 million a year on social services; and Exchequer expenditure on social services amounts to over a quarter of total Exchequer expenditure.

Voluntary organizations, especially the Churches, were the pioneers of nearly all the social services. They provided schools, hospitals, clinics, dispensaries, and social and recreational clubs before these were provided by the State. They made themselves responsible for the welfare of the very young and the very old, the homeless and the handicapped, before it was generally accepted that the whole community had a responsibility towards these people. Where the services and the facilities they provided were adequate, they have been encouraged to continue. The State now supplements these voluntary services and provides financial assistance, sees that essential services are brought within the reach of every citizen, and ensures that the necessary standards are maintained.

Many voluntary social services still surround and supplement the State services. The two types are not competitive but complementary and merge into each other. The State services often work through voluntary agencies specially adapted to serve individual or special needs. The welfare work of the National Assistance Board is supplemented by the work of many voluntary social service societies with whose workers the Board's officers co-operate, while State and local authority institutional provision for the chronic sick and aged is supplemented by voluntary homes of various types for the care of the sick and elderly, most of whom receive State pensions or benefit.

Voluntary Bodies

The number of voluntary charitable societies and institutions in Britain runs into thousands. Some of them are large and some are small and local in character. Some have general aims and others, such as the Royal National Institute for the Blind, have been established for a particular purpose. The societies co-operate with each other and with local authorities engaged on the same work.

Foremost among societies providing general social service are the National Council of Social Service, the Scottish Council of Social Service, and the Family Welfare Association. The National Council of Social Service was established in 1919 to create a closer link between the machinery of government and the voluntary activities of the ordinary citizen. The Family Welfare Association, formerly the Charity Organization Society, which was founded in 1869, works on personal lines to help any individual or family in need or difficulty. It has a number of district committees in London and there are, affiliated to it, about 60 family casework agencies in the provinces.

There is a Central Council for the Care of Cripples, and the major societies caring for homeless children, such as Doctor Barnardo's Homes and the Church of England Children's Society, are represented on the National Council of Associated

Children's Homes. Other examples of co-ordination in a specialized field are the National Association for Mental Health, the Women's Group on Public Welfare and the National Marriage Guidance Council.

Societies working on a national scale whose social work is definitely religious in inspiration include the Salvation Army, the Church Army, the Social Service of the Church of Scotland, the Church of England Children's Society, the Church of England Moral Welfare Council, the Young Men's Christian Association, the Young Women's Christian Association, the Society of St. Vincent de Paul, the Crusade of Rescue, the Jewish Board of Guardians and the Catholic Marriage Advisory Council.

War-time organizations such as the Women's Voluntary Services and the Citizens' Advice Bureaux (there are still about 465 of these bureaux) continue, with official support, to find scope for their activities. The Citizens' Advice Bureaux act as interpreters between the Government Departments and the ordinary citizen and, though the inquiries are somewhat fewer now than during the war, more skill and time are often needed for their solution. WVS activities are many and various. They include welfare work for children, the aged and the sick, and for certain foreign workers, as well as relief work in emergencies.

The old-established British Red Cross Society not only aids the sick and wounded in time of war but works in peace time for 'the improvement of health, the prevention of disease, and the mitigation of suffering'. It is, in particular, developing its welfare services for civilian disabled, invalid and crippled children and the aged. The members of the St. John Ambulance Brigade and, in Scotland, the St. Andrew's Ambulance Association likewise render voluntary auxiliary medical services and undertake welfare work for the sick and the infirm.

Old People's Welfare

Voluntary bodies take a large share in the work for old people that has been steadily expanding since the second world war brought into prominence the problems of old people's welfare that social and population changes had already begun to accentuate.

Hostels for bombed-out or evacuated old people have been followed by permanent homes where old people can live together in happiness and comfort however small their means. Voluntary homes of this kind now number over 750. More than 4,000 social clubs for elderly people have been started in recent years in all parts of Britain. The regular visiting of lonely old people and the delivery of cooked meals to their homes ('meals-on-wheels') are other welfare services that are being developed by voluntary effort with State support with the object of enabling old people to continue to live in their own homes wherever possible.

Local Old People's Welfare Committees are formed by those concerned in this work, and are aided by the National Old People's Welfare Council, an associated group of the National Council of Social Service widely representative of voluntary and statutory bodies having direct contact with old people, or by the Scottish Old People's Welfare Committee, a committee of the Scottish Council of Social Service. A National Corporation for the Care of Old People was established in 1947 by the Nuffield Foundation (see p. 369) to stimulate and to give financial support to schemes for the welfare of the aged, to maintain an expert technical advisory service, and to encourage and to undertake research and experiment for the welfare of old people. The Corporation is now concentrating its main effort on home services for old people. Over £400,000 from the King George VI Memorial Fund is being spent by the King George VI Foundation on schemes for the benefit of old people.

The Social Worker

While the voluntary worker giving full- or part-time service has done pioneer work in many of Britain's social services and continues to play an essential part in probably every service, social services of all kinds increasingly depend for their operation primarily on the professional social worker, that is the full-time salaried worker trained in the principles and technique of social service. Training for many forms of social work consists of a basic university diploma or certificate course in social science followed by a specialized training for a particular service. The latter is usually organized by the profession concerned. An attempt is being made to lessen specialization in social work.

Voluntary organizations have been pioneers in the employment and training of social workers, but it is a significant fact that central Government Departments and local authorities are employing trained social workers in greater numbers and in more services. Such workers include regional and local welfare officers, children's care organizers, children's officers for work under the Children Act, 1948 (see p. 328), neighbourhood workers, youth leaders, almoners, mental health workers, psychiatric social workers, tuberculosis care workers, housing managers, personnel managers and probation officers; in fact, representatives of most branches of social work. In June 1955 the Minister of Health and the Secretary of State for Scotland set up a working party to examine the field of work, recruitment and training of social workers in the local authorities' health and welfare services.

NATIONAL INSURANCE AND RELATED SERVICES

National Insurance, Industrial Injuries Insurance, Family Allowances and National Assistance together constitute a system of social security in the United Kingdom which ensures that in no circumstances need anyone fall below a minimum standard of life. The Ministry of Pensions and National Insurance administers the first three of these measures in Great Britain; in Northern Ireland they are administered by the Ministry of Labour and National Insurance. National Assistance is administered by the National Assistance Board in Great Britain, and in Northern Ireland by the National Assistance Board of Northern Ireland. Pensions and welfare services for war pensioners and their dependants (see p. 328) are the responsibility of the Ministry of Pensions and National Insurance throughout the United Kingdom.

The Poor Relief Act of 1601 can be regarded as the starting-point of public provision for social security in England and Wales. From the beginning of the present century, and particularly after the Royal Commission on the Poor Laws and Relief of Distress had issued its report, with the influential Minority Report, in 1909, a strong movement arose against the form and spirit of the poor law as it had been administered under the Poor Law Amendment Act of 1834. The first departure from the poor law as the sole means of relief given from public funds had been the introduction in 1908 of non-contributory old age pensions granted on a test of means. The poor law was finally superseded by the National Assistance Act, 1948. In the same period there was a development of compulsory insurance administered on a national basis. The Workmen's Compensation Act of 1897 foreshadowed the present National Insurance Industrial Injuries scheme, although the system it introduced of compulsory payment by employers of compensation to workers for accidents at work was not itself a State-administered insurance scheme. In 1912 came the National Health Insurance scheme and with it the introduction of the contributory principle on which all later measures have been based. In return for a small weekly contribution it provided a small cash payment and medical treatment without charge during sickness. It applied only to a limited number of the lower-paid workers. In 1912 also a limited scheme of unemployment insurance was started. This was extended in 1920 to cover the great majority of employed persons, a very necessary provision in view of the large-scale unemployment of the inter-war years. In 1926 contributory pensions for old people, widows and orphans were introduced.

By the beginning of the second world war the social services in Britain were among the best in the world, but they lacked co-ordination by the very fact of their piecemeal development, and they were not universal. A comprehensive, co-ordinated and unified plan for social security was needed.

Under the stimulus of war, when plans for post-war reconstruction were being formulated, Lord (then Sir William) Beveridge was invited by the National Coalition Government to investigate the country's existing social insurance system. In 1942 the Beveridge Report was published and recommended the creation of a comprehensive and unified system of social insurance. The report aroused intense interest and was accepted in general by the Government as the basis on which the future social security structure should be built.

In the immediate post-war years a series of Acts introduced a new comprehensive system which became fully operative on 5th July 1948. Adjustments have been made in a number of subsequent Acts.

Reciprocity

The national insurance, industrial injuries and family allowances schemes of Great Britain and those of Northern Ireland and the Isle of Man operate as a single system. Reciprocal agreements on family allowances are in operation with Australia, New Zealand, Jersey and Guernsey, and there are further agreements with Australia and New Zealand (on sickness, unemployment and widow's benefits, and retirement pensions), with Jersey (on sickness, industrial injuries and widow's benefits, guardian's allowances and retirement pensions) and with the Irish Republic (on sickness, unemployment, maternity and widow's benefits, and the insurance of seamen). Agreements covering various aspects of social security have been in operation with France since November 1949, with Italy since May 1953, with Switzerland since June 1954, with Luxembourg since April 1955, and with the Netherlands since June 1955. An agreement with Denmark on industrial injuries benefits has been in operation since May 1954. Similar agreements with other Commonwealth and European countries are under negotiation.

A multilateral agreement on social security, signed by the five Brussels Treaty Powers, was ratified by the United Kingdom in May 1950, and was implemented a year later for limited purposes; it will not come into full operation until the network of bilateral agreements between the five participating countries has been completed. Other multilateral provisions, embodied in two interim agreements on social security signed by the member countries of the Council of Europe and in a United Nations Convention on the status of refugees, have also been ratified and were brought into effect during 1954.

FAMILY ALLOWANCES

The Family Allowances scheme introduced the new comprehensive system of social insurance. Payments began on 6th August 1946 and provided an allowance of 5s. a week for every child in the family after the first under the age limit, i.e. up to the end of compulsory school age (normally 15) and for any further period before the 1st August following the sixteenth birthday while the child is receiving full-time instruction in a school (or would still be receiving such instruction but for ill health), or is an apprentice. (A Bill is to be introduced to extend the period during which family allowances are payable for children who remain at school.) The rate was raised to 8s. a week in September 1952, under the Family Allowances and National Insurance Act, 1952. Family allowances are paid from the Exchequer and their object is to benefit the family as a whole; these allowances belong to the mother but may be paid either to the mother or the father.

At the beginning of 1955 some five million family allowances were being paid to about three and a quarter million families in Great Britain. In Northern Ireland over 100,000 families were receiving between them more than 210,000 allowances.

NATIONAL INSURANCE

The National Insurance Act, 1946, came into full operation on the 5th July 1948. It has been amended by the National Insurance Acts, 1949 and 1951, the Family Allowances and National Insurance Act, 1952, and the National Insurance Acts, 1953, 1954 and 1955. The Acts apply, in general, to everyone over school-leaving age living in Great Britain. There are similar schemes in Northern Ireland and the Isle of Man.

Contributors are divided into three classes:

Class 1—Employed persons. Those who work for an employer under a contract of service or are paid apprentices—about 21½ million.

Class 2—Self-employed persons. Those in business on their own account and others who are working for gain but do not work under the control of an employer—about 1½ million.

Class 3—Non-employed persons. All insured persons who are not in Class 1 or 2—about half a million.

This general classification is subject to certain modifications, made by regulations, to meet special circumstances. Married women engaged only in their own household duties are, in general, provided for by their husbands' insurance and cannot become insured in their own right unless they were insured under the old scheme on the 5th July 1948 and continued to pay contributions as non-employed persons, or have since taken up paid work. Students undergoing full-time education and unpaid apprentices need not pay contributions. Up to the age of 18, contributions are credited to them. Over that age they may, if they wish, pay as non-employed persons (Class 3). Self-employed and non-employed persons whose income is not more than £156 a year can apply for exception from liability to pay contributions under the scheme.

Contributions

The main weekly rates of contribution from June 1955 are shown in Table 39, overleaf. These contributions, which the Exchequer supplements from general taxation, are normally paid on a single contribution card by National Insurance stamps bought from a post office. It is the employer's responsibility in the first place to see that the Class 1 contributions are paid, but he can deduct the employee's share from his or her wages. The self-employed and non-employed must stamp their own cards. Contributions are usually credited for weeks of unemployment, sickness or injury, or if widow's benefit is being paid.

An insured person ceases to be liable for National Insurance contributions when he retires, or is deemed to have retired, from employment. If such a person does

TABLE 39

	Men over 18	Boys under 18	Women over 18	Girls under 18
CLASS 1 (Employed persons)*	s. d.	s. d.	s. d.	s. d.
Paid by employee	6 9	3 11	5 6	3 3
Paid by employer	6 0	3 6	4 11	2 10
TOTAL	12 9	7 5	10 5	6 1
CLASS 2 (Self-employed persons)	8 5	4 10	7 2	4 3
CLASS 3 (Non-employed persons)	6 6	3 9	5 2	3 1

* Includes Industrial Injuries Insurance contributions.

any work as an employed person thereafter, he must pay an Industrial Injuries contribution (5d. weekly for a man, 3d. for a woman) and his employer's liability remains the same as shown in Table 39.

Benefits

The scheme provides sickness, unemployment, maternity and widow's benefit, guardian's allowance, retirement pension and death grant. Persons in Class 1 are covered for all benefits; those in Class 2 for benefits other than unemployment and industrial injuries benefits; and those in Class 3 for benefits other than sickness, unemployment and industrial injuries benefits, and maternity allowance.

For most of the benefits there are two contribution conditions. First, before any benefit can be paid, a minimum number of contributions must actually have been paid since entry into insurance; secondly, the full rate of benefit cannot be paid unless a certain number of contributions have been paid or credited over a specified period. For guardian's allowance and industrial injuries benefits there are no contribution conditions.

Rates of benefit have been increased since the scheme began. The rates current at the end of 1955 are set out below.

Sickness Benefit

The standard weekly rate of sickness benefit for a man or woman over 18 (except a married woman) is 40s., with an increase of 25s. for an adult dependant and 11s. 6d. a week for the first or only child under the family allowances' age limits (see p. 322), with 3s. 6d., in addition to any family allowance payable, for each subsequent child. The weekly rate for a married woman is 25s., but she is paid at the 40s. rate if she is maintaining an invalid husband or is separated from her husband and cannot get financial support from him.

Unless 156 Class 1 or Class 2 contributions have been paid since the entry into insurance, sickness benefit can be drawn only for a year, but in general it continues for as long as sickness lasts, once 156 contributions have been paid.

Unemployment Benefit

The rates of unemployment benefit are the same as for sickness benefit except that the standard rate for married women is 30s. instead of 25s.

Unemployment benefit is payable in the first place for 30 weeks, but it may be continued for up to a maximum of 19 months in all, according to the person's record of contributions paid as against unemployment benefit drawn in recent years.

Maternity Benefit

The National Insurance Acts, 1953 and 1954, amended the maternity benefits of the 1946 Act. A maternity grant of £10 is payable for a confinement, provided the required contribution conditions have been satisfied; and where more than one child is born at any confinement additional grants may be payable. A home confinement grant of £4 is payable where the mother is not confined in free accommodation under the National Health Service or in accommodation otherwise paid for out of public funds. A maternity allowance of 40s. a week, beginning with the eleventh week before the expected week of confinement, payable for 18 weeks, is available for working women who satisfy the contribution conditions. These are that during the year ending 13 weeks before the expected week of her confinement, the claimant must have paid 26 contributions as an employed or self-employed person and, for the full rate of the allowance, have a total of at least 50 contributions paid or credited. Increases of maternity allowance for dependants are payable in certain circumstances at the same rates as increases of sickness benefit.

Widow's Benefit

There are three kinds of widow's benefit, paid only on the deceased husband's insurance. A Widow's Allowance of 55s. a week plus 11s. 6d. a week for the first or only child under the age limits (see p. 322) and 3s. 6d. a week for second and subsequent children (in addition to family allowances) is paid for 13 weeks. A Widowed Mother's Allowance of 51s. 6d. a week is paid following widow's allowance to a widow who has a child who qualifies under the age limits; she also receives 3s. 6d. a week, in addition to any family allowance, for each child after the first. A Widow's Pension of 40s. a week is paid to a widow (a) who is 50 or over at the time of the husband's death and has been married ten years, or (b) who is 40 or over when her widowed mother's allowance ends, provided ten years have elapsed since the marriage, or (c) who, when her widow's allowance or widowed mother's allowance ends, is incapable of self-support because of infirmity and is likely to remain so for a long time.

Guardian's Allowance

A Guardian's Allowance of 18s. a week may be paid to a person who has in his family a child whose parents (or step-parents) have died and one of whom was insured under the National Insurance Acts. This continues while the child remains in the guardian's family and is a child within the meaning of the Family Allowances Act.

Retirement Pension

Retirement pensions are paid to men at the age of 65, and to women at the age of 60, provided they have retired from regular employment. From the age of 70 (men) and 65 (women), however, the pension is payable whether or not the claimant has retired. The standard rate is 40s. a week. A married woman ordinarily qualifies for pension on her husband's insurance at the standard rate of 25s. a week. If after retirement a pensioner below the age of 70 (65 for a woman) earns any money, then, for every 1s. earned over £2 in any week, 1s. is deducted from the following week's pension.

Men and women are encouraged not to retire at minimum pension age and are able to earn a larger retirement pension by continuing in their jobs. For every six months they stay at work between the ages of 65 and 70 (men) or 60 and 65 (women) their pension is increased by 1s. 6d. a week. The pension of the wife of such a contributor is increased by 1s. a week for each six months' extra work and continues at this rate up to the time of the contributor's death; if his wife survives him her pension is re-calculated at the 1s. 6d. rate. A man now reaching the age of 65 who continues at work for a further five years can therefore receive a pension of as much as 55s. on attaining the age of 70. If he has a wife not more than five years younger than himself, their combined pensions can be 90s.; if the wife survives her husband her pension can be 55s.

A retirement pensioner is entitled to an increase of 25s. a week for his wife if she is under 60 and also to an increase of 11s. 6d. for the first child under the family allowances' age limits (see p. 322), and 3s. 6d. for each succeeding child, in addition to any family allowance payable.

Death Grant

A Death Grant of up to £20 is paid towards the expenses in connection with the death of an adult, and a smaller sum on the death of a child. Grants are not paid for persons already over pension age on 5th July 1948, or for children born before 5th July 1948 if they die before they are ten years old. Reduced grants are paid on the deaths of people who on 5th July 1948 were over 55 (men) or over 50 (women).

NATIONAL INSURANCE (INDUSTRIAL INJURIES)

The Industrial Injuries Insurance scheme, which replaced the Workmen's Compensation scheme in July 1948, provides benefits for personal injuries caused by accidents arising out of, and in the course of, employment, and for prescribed diseases due to the nature of employment. It covers practically everyone in Class 1 of the National Insurance scheme and certain others. The relevant Acts are the National Insurance (Industrial Injuries) Acts, 1946 to 1954.

Benefits

Injury Benefit

Injury Benefit for an adult is 67s. 6d. a week plus 25s. for an adult dependant and 11s. 6d. for the first or only child under the family allowances' age limits (see p. 322) and 3s. 6d. for each other eligible child, in addition to any family allowance payable. It is paid when the insured person is incapable of work as a result of an industrial accident or disease, and payment can continue for a maximum of 26 weeks from the date of the accident or development of the disease.

Disablement Benefit

Disablement Benefit may be paid when injury benefit stops and the amount depends on the extent of the disablement, as assessed by a medical board. It varies from 67s. 6d. for 100 per cent disablement to 13s. 6d. a week for 20 per cent disablement. For disablement of less than 20 per cent a gratuity is normally paid, ranging up to £225.

In the following circumstances Disablement Benefit may be increased:

1. It will be made up to the 100 per cent rate during in-patient treatment in a hospital for the relevant injury or disease, and increases for dependants will be paid.

2. If benefit is being received at the 100 per cent rate and someone is needed to look after the insured person, a constant attendance allowance not exceeding 30s. a week (60s. in certain cases) may be paid.
3. If the insured person is permanently unfit for work an unemployability supplement of 40s. a week may be paid, with allowances for dependants.
4. If the insured person is unfit to return to his former job, or work of a similar standard, benefit may be increased (subject to a maximum of 67s. 6d.) by a special hardship allowance of up to 27s. 6d. a week.

Death Benefit

If the accident or disease results in the insured person's death, Death Benefit is paid to the dependants. The amount varies according to the degree of relationship and the extent of maintenance during lifetime.

A widow receives a pension of 55s. a week for the first 13 weeks. Thereafter she gets a pension of 45s. a week if she is over 50 or permanently incapable of self-support or has the care of a child of the dead man. In other cases the pension is 20s. a week. In addition, an allowance of 11s. 6d. can be paid for the first or only child, and 3s. 6d. for each other child under the family allowances' age limits (see p. 322).

Certain other dependants, such as parents, are entitled to pensions, allowances or gratuities. The amounts vary with the closeness of the relationship and the extent to which they were maintained by the deceased during his lifetime.

Adjudication

Claims for benefit under the National Insurance and National Insurance (Industrial Injuries) Acts are not decided by the Ministry but by independent authorities appointed under the Acts.

NATIONAL ASSISTANCE AND CARE OF CHILDREN

The National Assistance Act, 1948, also came into operation on 5th July 1948. It provides a unified State service of financial assistance for those in need, replacing the various 'needs' services provided in the past by the State and local authorities. As the residual service, National Assistance meets the financial needs of all those people who are unable to maintain themselves and who fall outside the scope of the other social security services, and supplements the insurance benefits when they are insufficient.

The National Assistance Board is responsible for administering these weekly cash grants. It has various other duties, including the administration of non-contributory pensions under the Old Age Pensions Act, 1936 (still payable on a means and residence test to a diminishing number of persons over 70 who have not qualified for pensions under the contributory scheme); the administration of hostels provided under the Polish Resettlement Act, 1947; and the assessment under the Legal Aid and Advice Act, 1949, and the Legal Aid and Solicitors (Scotland) Act, 1949, of the maximum amount a person applying for legal aid may be called upon to pay towards the cost of the action.[1]

The Board is responsible for influencing 'persons without a settled way of living' to lead a more settled life. It provides temporary accommodation for such persons, usually through the agency of local authorities, and it runs a residential re-establishment centre for men of this type or men who have been long unemployed and in receipt of National Assistance grants.

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[1] For further information on legal aid see pp. 80–81.

The provision under the National Assistance Act of residential accommodation for the aged, infirm and others, and of special welfare services for the blind, the deaf, the crippled and other handicapped persons is not the responsibility of the National Assistance Board but of county and county borough councils in England and Wales and, in Scotland, of councils of counties and large burghs.

The Children Act, 1948, provides that all local authorities shall have special children's committees to be responsible for the care of all children deprived of a normal home life, and in other ways makes improved provision for their care.

In Northern Ireland financial assistance is given under the provisions of the National Assistance Act (Northern Ireland), 1948, to persons in need and there is also a system of non-contributory pensions similar to that in operation in Great Britain. Under the Welfare Services Act (Northern Ireland), 1949, local authorities, in their capacity as welfare authorities, provide residential accommodation for the aged, infirm and other persons who are in need of care and attention. The welfare authorities also provide special services for the blind, deaf and other handicapped persons and are responsible under the Children's Act (Northern Ireland), 1950, for the care of all children deprived of normal home life.

WAR PENSIONS AND RELATED SERVICES

Pensions to persons disabled or bereaved through the wars are paid under Royal Warrants.

The current basic pension for 100 per cent disablement for a private soldier is 67s. 6d. a week, but the amount varies according to the rank and degree of disablement. The latter is assessed by comparing the disabled person with a normal healthy person of the same age and sex, without taking earning capacity into account. Allowances for a wife and children are paid in addition to the basic pension and there are supplementary allowances for unemployability, constant attendance, additional comforts and lowered standard of occupation.

Both the basic disablement pension and the supplementary payments are free of income tax, and children's allowances are paid in addition to any allowance payable under the Family Allowances Acts.

War pensioners have priority (except over more urgent cases) for treatment of their war disabilities in National Health Service hospitals.

Pensions are paid to war orphans and to war widows. The latter also receive allowances for their children, and, in certain cases, an allowance for rent. Parents or other relatives who were dependent on a person whose death resulted from the wars may receive pensions if they are in pecuniary need.

The Ministry of Pensions and National Insurance maintains a welfare service for war pensioners, with a special branch for war orphans.

The British Legion and other voluntary associations also give financial aid and personal service to disabled ex-servicemen and women and their families. The Ministry and these bodies work in co-operation.

The Imperial War Graves Commission

The Commission was founded in 1917, its purpose being to commemorate the war dead of the British Commonwealth and Empire by establishing war cemeteries, ensuring the perpetual care of war graves, whether in these cemeteries or elsewhere, and erecting suitable memorials to those who have no known grave. A Charter of 1940 extended the Commission's powers to enable it to deal with the dead of the 1939–45 war. The members of the Commission include representatives of the United Kingdom and Commonwealth Governments and of the three Services, and a number of unofficial members chosen for distinction in various walks of life. The cost of the Commission's work is borne by the respective Governments in proportion to the numbers of the graves of their dead.

HEALTH

The concern of the State with public health is chiefly a development of the last 100 years. The second half of the nineteenth century saw the growth of compulsory and comprehensive environmental health services, such as provision of pure water, sewerage, disposal of refuse and cleaning of streets, and also building byelaws and other measures designed to promote healthy living conditions in Britain. Local authorities provided smallpox and other infectious-disease hospitals and poor law infirmaries in the nineteenth century, but the major hospital and medical services remained in the hands of voluntary hospitals and private practitioners until the twentieth century, when the main development of publicly provided personal health services, as distinct from environmental services, took place. The medical benefit introduced under the National Insurance Act of 1911 was the first step in the provision of a State-aided general practitioner service outside the Poor Law. There was progressive development in the hospital services provided by local authorities, and the period before the first world war is notable for the development of maternity and child welfare and of measures for the prevention and treatment of tuberculosis.

Since the first world war there has been progress in many directions: medical research, discovery of important new drugs, blood transfusion, control and treatment of venereal disease, and research into diet.

The second world war served to emphasize the importance of a sound diet and as a result the Welfare Foods Service for expectant and nursing mothers and young children was introduced (see p. 335) and the School Meals Service (see p. 343) and industrial canteens were expanded. War also stimulated developments in industrial health services (see pp. 275–6) and in the rehabilitation of the disabled (see pp. 261 and 333).

THE NATIONAL HEALTH SERVICE

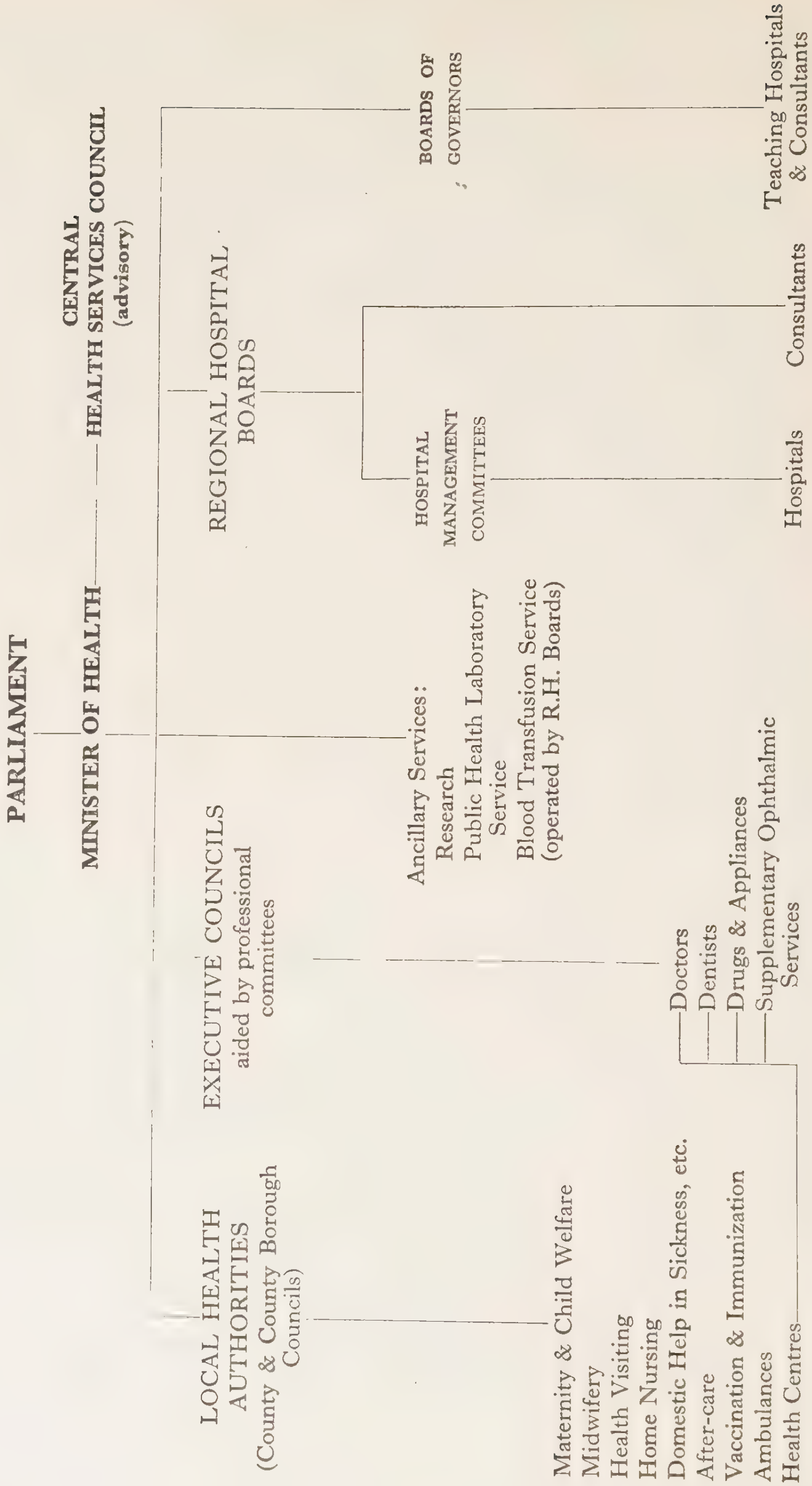
The National Health Service was established in 1948. The relevant Acts, the National Health Service Act, 1946, the National Health Service (Scotland) Act, 1947, and the Health Services Act (Northern Ireland), 1948, came into force simultaneously on 5th July 1948.

The National Health Service Act, 1946, aims 'to promote the establishment in England and Wales of a comprehensive health service designed to secure improvement in the physical and mental health of the people of England and Wales and the prevention, diagnosis and treatment of illness, and for that purpose to provide or secure the effective provision of services'. The National Health Service (Amendment) Act, 1949, the National Health Service Act, 1951, and the National Health Service Act, 1952, make some modifications in the scheme for Great Britain and provide for charges to be made for certain parts of the Service, which is otherwise free of charge, and which is available to all according to medical need. Its availability is not dependent on contribution to National Insurance.

Health Service Administration in Great Britain

In England and Wales the Minister of Health has assumed direct responsibility for (1) the provision on a national basis of all hospital and specialist services, (2) the

ORGANIZATION OF THE NATIONAL HEALTH SERVICE IN ENGLAND AND WALES


PARLIAMENT
MINISTER OF HEALTH
CENTRAL HEALTH SERVICES COUNCIL (advisory)
LOCAL HEALTH AUTHORITIES (County & County Borough Councils)
EXECUTIVE COUNCILS aided by professional committees
REGIONAL HOSPITAL BOARDS
BOARDS OF GOVERNORS
Maternity & Child Welfare
Midwifery
Health Visiting
Home Nursing
Domestic Help in Sickness, etc.
After-care
Vaccination & Immunization
Ambulances
Health Centres
Doctors
Dentists
Drugs & Appliances
Supplementary Ophthalmic Services
Ancillary Services:
Research
Public Health Laboratory Service
Blood Transfusion Service (operated by R.H. Boards)
HOSPITAL MANAGEMENT COMMITTEES
Hospitals
Consultants
Teaching Hospitals & Consultants

former mental health functions of the Board of Control and local authorities, except for the quasi-judicial functions of the Board designed to safeguard the liberty of the patient,[1] (3) the conduct of research work into any matters relating to the prevention, diagnosis or treatment of illness or mental defect, (4) a public health laboratory service, and (5) a blood transfusion service. He has indirect responsibility for the establishment and maintenance of general practitioner services and all other services. He is advised by the Central Health Services Council and by standing advisory committees on various aspects of the Service.

The hospital and specialist services are administered through Regional Hospital Boards and Hospital Management Committees or, in the case of teaching hospitals, by Boards of Governors. The hospitals themselves have been grouped into administrative units; these consist sometimes of several formerly independent hospitals, and sometimes of one. There are nearly 400 such groups under the control of hospital management committees, which are in turn under the control of 14 regional hospital boards. The regions are arranged so that the hospital and specialist services can conveniently be associated with a university having a school of medicine.

The members of the hospital management committees are appointed by the regional hospital board. The committees, by their constitution, reflect the communities concerned, for they usually include not only medical practitioners but members of local authorities, trade unionists and others. The regional hospital boards are appointed by the Minister and are similarly constituted. The term of office is three years, one-third of the board or committee retiring each year but being eligible for reappointment. The boards of governors of teaching hospitals are appointed by the Minister, a proportion of the members being nominated by the teaching faculty of the university, the regional hospital board and the medical staff. All appointments to hospital management committees, regional hospital boards and boards of governors are honorary.

Medical and dental schools are not under the control of the Minister. It is the Minister's responsibility to provide clinical facilities for the training of medical students. The universities are responsible for the provision of teaching.

The administration of the General Medical, Dental, Pharmaceutical and Optical Services (see p. 334) is in the hands of 138 Executive Councils, each covering the area of a county or county borough. (In a few cases two areas are combined under one council.) Each council has an Ophthalmic Services Committee responsible for administering the Supplementary Ophthalmic Service. Doctors, dentists and pharmacists are represented on the Executive Councils and each profession also forms a local committee. Councils of counties and county boroughs are the 146 local health authorities in charge of local health services (see pp. 334–7).

In Scotland the Secretary of State for Scotland is the responsible Minister; 31 county councils and 24 town councils of large burghs are the local health authorities; hospital and specialist services are administered by five Regional Hospital Boards appointed by the Secretary of State, assisted by 84 Boards of Management

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[1] The functions of the Minister include the supervision of local authorities in the performance of their duties with regard to persons of unsound mind (see p. 336), the general supervision of matters relating to mental defectives, and the licensing or other formal approval of accommodation for mentally ill or defective patients outside the National Health Service. The Board of Control deals with the admission, discharge and periodic review of mentally disordered or defective patients and inspects all institutions for their care, whether in or outside the National Health Service.

In February 1954 a Royal Commission was set up to inquire into the existing law and administrative machinery in England and Wales governing the certification and care, other than hospital care or treatment under the National Health Service Acts, of persons suffering from mental illness or defect.

(the equivalent of hospital management committees in England); and there are 25 Executive Councils, each serving the area of one or more local health authorities. The teaching hospitals in Scotland come under the control of the Regional Hospital Boards, but special Medical Education Committees consider matters relating to medical teaching. The Scottish Health Services Council and its Standing Advisory Committees advise the Secretary of State and keep closely in touch with the Central Health Services Council on common issues.

The Northern Ireland Health Service is described separately on pages 337–8.

Health Service Finance

About four-fifths of the cost of the National Health Service falls on the Exchequer. The balance is met mainly by a transfer from the National Insurance Fund, payments by persons using the Service and local rates. (Half the expenditure by local health authorities is refunded to them by the central Health Departments.)

Since 1950 an attempt has been made to check the rising expenditure on the National Health Service and to keep the net total cost to the Exchequer for the Service in Great Britain from greatly exceeding £400 million. To help to limit expenditure without reducing the services offered, it was found necessary in 1951 and again in 1952 to introduce charges for certain items in the Service. There is a charge of 1s. on each prescription form, and charges are also made for dentures and spectacles (except children's spectacles in standard frames), for elastic hosiery supplied in the family doctor service or hospital out-patients department, for certain appliances supplied to out-patients, for treatment in the dental service (but not for examination only or for treatment given to persons under 21 or to nursing or expectant mothers), and for some local health authority services. Certain exemptions or refunds are made and anyone may apply to the National Assistance Board for help in meeting any of these charges. Under the 1946 Act a limited number of beds may be put aside for hospital patients wishing for privacy, provided that this accommodation is not needed on medical grounds for non-paying patients. Charges for these 'amenity' beds are fixed under Regulations. Provision is also made at certain hospitals for patients who wish to occupy private patients' accommodation on payment of the whole cost of this accommodation and treatment. Such patients may make private arrangements for treatment by a doctor of their own choice.

Hospital medical staffs are either full-time and salaried or part-time; part-time medical officers are usually paid on a sessional basis and are free to accept private patients. General medical practitioners in public service are remunerated mainly by capitation fees according to the number of persons on their lists.

Dentists providing treatment in their own surgeries are paid on a prescribed scale of fees according to the items of treatment they have carried out. Pharmacists dispensing on their own premises are paid on the basis of the prescriptions they dispense. Doctors and ophthalmic opticians taking part in the Supplementary Ophthalmic Service are paid on the basis of the number of sight tests made; opticians who dispense glasses are paid according to the number of pairs of glasses supplied.

Hospital and Specialist Services

The hospital and specialist services include the provision of consultants; hospitals of all kinds including maternity accommodation, tuberculosis sanatoria, mental hospitals and institutions for the mentally defective, infectious-disease units, convalescent homes and rehabilitation centres; and all forms of specialized treatment.

At the end of 1954 there were in the Service in England and Wales 2,655 hospitals (including teaching hospitals) with 481,673 available beds and a nursing and midwifery staff of 144,551 full-time and 30,363 part-time nurses. In Scotland there were 400 hospitals with 62,400 beds, and 20,279 full-time and 3,849 part-time nurses and midwives. A small number of hospitals remain outside the Service for special reasons. Most of these are run by Religious Orders.

It is proposed to begin an expanded programme of new hospital building and increased expenditure on capital improvements in existing hospitals in 1956.

Teaching Hospitals

The 26 London teaching hospitals are in fact groups of hospitals, and include 97 hospitals, convalescent homes, branches, annexes or treatment centres. The 10 teaching hospitals in Wales or in the provinces cover some 67 hospitals and other establishments.

Rehabilitation

Rehabilitation departments are established at the main hospital centres. The work is carried out under the guidance of the appropriate medical specialist by physiotherapists, remedial gymnasts, occupational therapists and social workers, working as a team. The aim is to prevent undue disability and to restore fitness after all forms of sickness and injury. Experience has shown that efficient medical rehabilitation reduces the stay in hospital, the incidence of permanent disability and the period of incapacity for full work. The departments work in close association with the Disablement Resettlement Service of the Ministry of Labour and National Service (see pp. 260–62). Rehabilitation methods have been applied with advantage in the care of the chronic sick and have enabled many patients to be discharged from hospital and to resume an independent life in their own homes.

Blood Transfusion

The National Blood Transfusion Service is administered by the regional hospital boards under the National Health Service. Each of the regions is centred on a university town, where an organization is maintained for collecting blood within the region. The blood is kept in the Regional Blood Bank, or issued to Area Blood Banks which are maintained at general hospitals in each county. Each of the principal hospitals holds a supply of blood sufficient not only for its own needs but also for the smaller hospitals, nursing homes and general practitioners in its district. In Scotland, the Scottish National Blood Transfusion Association organizes the service on behalf of the Secretary of State. The blood is provided free by voluntary donors recruited from the public. In 1954 the total of blood donations in Great Britain was 793,202.

Medico-Social Work

There are over 1,000 trained almoners working in Britain; the majority work in hospitals, others in local health authority services or elsewhere. The almoner co-operates with the medical staff in the investigation and treatment of disease by elucidating and adjusting social and economic factors which contribute to a patient's disability or impede his restoration to health. Psychiatric social workers are specially trained for work in the mental health and education services. They are an invaluable complement to doctors not only in mental and mental deficiency hospitals but also in the local health and education services, in assessing the environmental factors in mental abnormalities and in helping patients to make the necessary adjustments to their environment.

The General Medical Services

The General Practitioner Services cover the medical attention given to individuals by doctors and dentists of their own choice, from among those enrolled in the Service. Doctors and dentists normally work at their own surgeries; in a few places they practise in health centres established under the National Health Service Acts. Nearly 24,000, or almost all, general practitioners (principals and assistants) in Great Britain take some part in the Service.

Doctors previously in practice were entitled to join the Service at its start in the place where they were practising. Those now wishing to start practice have to apply through their Executive Councils to the central Medical Practices Committee, so that a better distribution of doctors throughout the country may be facilitated. The maximum number of patients' names permitted to be on one principal's list is 3,500. The average number in England and Wales is about 2,200.

Of about 10,000 dentists in England and Wales available for general practice, about 9,500 are in the Service, and in Scotland 1,155 dentists (practically all those in general practice) are in the General Dental Service.

Over 900 ophthalmic medical practitioners and over 7,000 ophthalmic and dispensing opticians in England and Wales, and 68 ophthalmic medical practitioners and 918 ophthalmic and dispensing opticians in Scotland, are engaged in the Supplementary Ophthalmic Service. This service provides for the testing of sight and provision of glasses. Cases requiring treatment are dealt with through the hospital eye service.

Almost all chemists (15,000 in England and Wales and 1,750 in Scotland) are taking part in the Service.

Local Health Services

The Local Health Services administered by the county and county borough councils (in Scotland, county and large burgh councils) include those for maternity and child welfare (but not hospitals and maternity homes), domiciliary midwifery, vaccination and immunization, health visiting, home nursing, the prevention of illness and the care and after-care of the sick (including the mentally ill and also the mentally defective), the provision of domestic help in time of sickness or confinement, etc., the ambulance service (in Scotland, the responsibility of the Secretary of State), and the establishment and maintenance of local health centres (in Scotland, the responsibility of the Secretary of State).

Welfare Centres

Maternity and child welfare centres have been established for many years. In England and Wales there are about 5,500 child welfare, 2,000 ante-natal and 230 post-natal clinics. In Scotland there are 400 child welfare, 100 ante-natal and 70 post-natal clinics. These are part of the advisory and preventive services of the local health authority and they provide regular supervision by nurses and doctors for expectant and nursing mothers and young children. Special clinics for test feeding and for remedial exercises may also be arranged at a number of centres and a feature of the service is the education of the mothers by means of talks, demonstrations and special classes, particularly in mothercraft. Some centres are also the distribution points for the national dried milk and vitamin preparations provided for expectant mothers and young children which are distributed by local health authorities (see p. 335). In England and Wales about three out of four babies attend the centres.

Maternal Care

According to the advice given by the doctor or midwife and her own preference, the expectant mother may arrange to have her baby at home or in hospital; in allocating hospital beds priority is given to those for whom domiciliary confinement is inadvisable for medical or obstetric reasons or because of adverse home conditions. For a home confinement every mother has available to her the services of either a general practitioner obstetrician or her own family doctor if he is willing to undertake her maternity care, besides those of a trained midwife employed in the domiciliary service of the local health authority. The doctor carries out certain ante-natal and post-natal examinations, attends at the confinement (if he thinks it necessary) and gives any other medical care required. Routine supervision and advice is provided by the midwife, who visits regularly before the confinement for the purpose of examination and to give the mother advice and help. In addition, the expectant mother may attend the ante-natal clinic for instruction in preparation for motherhood and in some cases for interim ante-natal supervision. The midwife delivers the patient (unless the doctor considers it necessary to be present) and continues in attendance for the first 14 days after the birth. Midwives work in close touch with the welfare centres in the care of the mother both before and after the birth of the child.

Welfare Foods Service

Local health authorities distribute the welfare foods other than liquid milk that the Welfare Foods Service[1] provides for expectant and nursing mothers and young children, at a low cost or free of charge. These foods are National Dried Milk as an alternative to liquid milk[2] and at an equivalent price; orange juice, at 5d. a six-fluid-ounce bottle, and cod liver oil, free of charge, for expectant mothers and children under five; vitamin A and D tablets, free of charge for expectant mothers as an alternative to cod liver oil, and also for mothers for 30 weeks after confinement. Milk and orange juice are supplied free to expectant mothers and to children under school age if the families cannot afford to pay.

Other Maternity and Child Welfare Services

Many local health authorities make special arrangements for premature babies remaining in their own homes, by lending equipment and appointing experienced nursing staff to supervise their care.

There are some day nurseries for children under five in Great Britain provided by local health authorities or voluntary associations working with them. The National Health Service Act, 1952, gave local authorities power to make charges for the use of day nurseries. Private or factory nurseries must be registered with the local health authorities; this regulation applies also to persons who mind for payment more than two children, not all of the same family.

Local authorities co-operate with voluntary denominational and other bodies caring for unmarried mothers and their babies, or make direct provision for their special needs through welfare workers, homes, hostels and nurseries, and by finding suitable foster-mothers.

Health Visiting

Health visitors, who are qualified nurses with special additional training, give expert advice to mothers in their own homes on such matters as breast feeding, the general care of the baby, and the nurture of children up to five years old. They are also responsible for giving advice on the care of the sick and the measures necessary to prevent the spread of infection. They, together with special tuberculosis visitors, have a particular interest in tuberculosis. They are also employed in the School Health Service.

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[1] The Service began in 1940 with the National Milk Scheme and in 1946 the extended scheme was put on a permanent basis as the Welfare Foods Service. Beneficiaries now obtain the necessary coupons from the Ministry of Pensions and National Insurance.

[2] The liquid milk allowance (which is obtained through usual retail channels) is one pint a day at 1½d. a pint for expectant mothers, children under five, and children between five and sixteen who are physically or mentally disabled and are unable to attend school where they would receive milk.

Home Nursing

The employment of nurses for attending persons who require nursing in their own homes is the responsibility of the local health authorities. Although many authorities employ nurses directly for this purpose, others have entered into arrangements with voluntary organizations to provide a service on their behalf.

Domestic Help

Local health authorities have the power to make arrangements for providing domestic help in households where it is needed owing to illness, confinement, or the presence of children, old people or mental defectives. This is not one of the free services and authorities are authorized to recover from those assisted such charges as the authorities consider reasonable, having regard to the person's means.

Ambulance Services

Free conveyance between home and hospital or clinic is provided, where necessary, either directly by local health authorities or, on their behalf, by voluntary organizations. The Hospital Car Service (organized by the St. John Ambulance Brigade, the British Red Cross Society, and the Women's Voluntary Services) provides transport in many areas for patients who do not require an ambulance; such patients are conveyed in private cars whose owners volunteer to give this service, and the authorities make a mileage payment to the volunteers to cover their expenses. In Scotland, ambulances are run by the Scottish Ambulance Service (St. Andrew's Ambulance Association and the Scottish Branch of the British Red Cross Society) on behalf of the Secretary of State.

Mental Health Services

Persons who are suffering from mental illness can consult the family doctor and receive specialist advice at hospital out-patient clinics in the ordinary way. If they need to enter a mental hospital they can do so as voluntary patients with little formality. If need be, they may be admitted under Order as temporary or certified patients. If patients, or their relatives, are unable or unwilling to make the necessary arrangements for admission to a mental hospital, it is the duty of a duly authorized officer of the local health authority to do so. The local health authority is expected to offer a welfare service to such patients, whether before admission or to help their rehabilitation on discharge.

Local health authorities have a duty to ascertain mental defectives in the community, to supervise them and to provide, where practicable, suitable training or occupation. This is given in occupation centres where the defectives attend daily, as at school, or by home teaching. If supervision affords insufficient protection it is the duty of officers of the local health authority to take the initial steps to place such defectives under guardianship within the community or to arrange for their admission to a mental deficiency hospital.

Control of Infectious Disease

Control of infectious disease is based on four main principles: notification, isolation, supervision of contacts and, for some diseases, immunization. The investigation of outbreaks of infectious disease is the concern of local Medical Officers of Health and of the Public Health Laboratory Service associated with the Medical Research Council (see pp. 376–7).

There are arrangements to deal with certain conditions and diseases which require specialized treatment both to alleviate the sufferings of the patients and to protect the community as a whole, such as the provision of treatment centres for venereal disease and the provision of sanatoria and chest clinics for the specialist treatment of tuberculosis. The prevention of tuberculosis, and of infectious diseases generally, is also a matter of active concern. The public is offered free examination by mass miniature radiography for the early detection of chest disease; at the end of 1954, 69 mass radiography units were operating in England and Wales and 9 in Scotland.

Vaccination and Immunization

Arrangements are made by local health authorities for a service providing free vaccination against smallpox, and immunization against diphtheria. Parents cannot be compelled to make use of this service but they are given every encouragement to do so; and the success of the diphtheria immunization campaign is a very hopeful sign. In 1954 there were only 9 deaths from diphtheria in England and Wales as against 2,641 in 1941; in Scotland, only 2 deaths as against 517 in 1941. Besides freely available vaccination against smallpox and immunization against diphtheria, BCG vaccination against tuberculosis is available in some areas to certain schoolchildren and certain persons specially exposed to risk.

Health Centres

A few health centres have already been established, differing widely in size and character according to local need. Experience shows that they are likely to be most successful in areas of housing development where new services are needed. The need to observe the working of the largely experimental centres already provided and to conserve scarce resources is likely to prevent any general expansion of the service in the near future. In Scotland, where the provision of health centres is the direct responsibility of the Secretary of State for Scotland, two have been built.

HEALTH SERVICES IN NORTHERN IRELAND

In Northern Ireland the historical development of the health services has taken broadly the same course as in other parts of the United Kingdom and the Health Service established under the Health Services Act (Northern Ireland), 1948, corresponds fairly closely to the medical care system established under the National Health Service in Great Britain. The essential principle is that the same range of services shall be available to citizens in Northern Ireland as in England, Wales and Scotland. The Service in Northern Ireland is financed as in the rest of the United Kingdom.

In hospital administration the role of the central Government is not quite so immediate or direct as in Great Britain, and hospital property, for example, is vested not in the Minister of Health and Local Government but in the Northern Ireland Hospitals Authority. The Hospitals Authority has under its control 62 hospitals and three special case institutions containing in all about 14,500 beds.

The Tuberculosis Service is on a separate footing from the main Hospital Service, having been established a little earlier to deal urgently with a serious tuberculosis problem. The Northern Ireland Tuberculosis Authority, which was constituted for the prevention of tuberculosis and the care of tuberculous patients by the Public Health (Tuberculosis) Act (Northern Ireland), 1946, has eight hospitals under its control.

Vaccination against smallpox is compulsory in Northern Ireland but otherwise the range of preventive and domiciliary services is similar to that existing in Great Britain.

THE MEDICAL, DENTAL AND ALLIED PROFESSIONS

Only persons whose names are on the medical register can practise as doctors under the National Health Service. Apart from medical practitioners, only persons whose names are on the dentists' register can practise dentistry in Britain. The minimum qualification for registration as a doctor requires five to seven years' training in medical school and hospital, plus one year as an intern; for a dentist, four or more years at a dental school are required.

The minimum period of hospital training required to qualify for State registration as a general trained nurse is three years. Training is available also in sick children's, mental, and mental deficiency nursing. The enrolled assistant nurse undergoes an essentially practical training for one year, followed by a year's work under supervision before enrolment.

Only registered pharmacists may describe themselves as such, and qualifications requiring four to five years' vocational training are necessary for registration.

For the professions of almoner, chiropodist, dietitian, medical laboratory technician, occupational therapist, psychiatric social worker, physiotherapist, radiographer and speech therapist a good general education is required followed by a professional training. The length and nature of the training varies according to the profession.

VOLUNTARY AID FOR THE SICK AND HANDICAPPED

A number of voluntary organizations provide services of various kinds for sick and handicapped persons in co-operation with, or supplementary to, the services provided by central and local authorities. A number of convalescent homes, for instance, of a type outside the scope of the hospital service, are administered by such bodies. In many areas invalid children and others needing care in their own homes are visited and helped by voluntary organizations. Special organizations also serve the welfare of the blind, the deaf and other special groups. Though the need for material aid from private sources becomes less as public provision extends, many forms of help to meet individual needs that would not otherwise be met are given by voluntary agencies. Their most valuable service is probably to provide personal service and the continued personal interest that can contribute so much to the welfare of the sick and infirm. These voluntary agencies usually depend largely on the work, part-time or full-time, of unpaid volunteers.

EDUCATION

There are over seven million children and young people in full-time attendance at schools or universities in the United Kingdom. Over 90 per cent of school children attend publicly provided or aided schools. The universities are independent, self-governing institutions but they derive an increasing proportion (now over two-thirds) of their funds from public sources. Many schools and colleges continue to benefit from the endowments provided by benefactors in past centuries.

In England and Wales, the main development of publicly provided primary education dates from 1870, and that of secondary education from the beginning of the present century. In 1833 the Government had begun to make annual grants to the voluntary societies which were providing schools, and the Elementary Education Act of 1870 accepted the principle of compulsory education. By the end of the nineteenth century elementary education had become virtually both compulsory and free. Public provision of secondary education (already begun in Wales) started in England under the Act of 1902. The Education Act of 1944 now governs public education in England and Wales. It seeks to widen and improve educational opportunities at every stage.

The Scottish and Northern Ireland educational systems have each a long history independent of that of education in England, but the same general policy is now being implemented throughout the United Kingdom, with some national variations in Scotland, Wales, and Northern Ireland.

Educational Administration

The national system provides education in three stages: primary, secondary, and (for those who have left school) further education. Local authorities are responsible for ensuring that adequate facilities are available in their areas throughout these stages.

Administration is divided between the central Government Departments (the Ministry of Education for England and Wales, the Scottish Education Department, and the Ministry of Education for Northern Ireland), local education authorities, and various voluntary organizations. The relation between these three groups is based on consultation and co-operation, both by direct contact between the parties and through Her Majesty's Inspectors who act as liaison officers, particularly between local education authorities and the Departments.

All schools, including independent schools, are subject to official inspection.

SCHOOLS

School attendance is compulsory between the ages of 5 and 15 in Great Britain (temporarily 14 in Northern Ireland). In England and Wales over 6,445,000 children, including about 172,000 under and 232,000 over compulsory school age, are attending publicly maintained schools, besides 100,000 others (including 1,600 under and 28,000 over school age) who are at schools receiving direct grants from the Ministry of Education. There are also about half a million children of all ages at independent schools. In Scotland, 830,000 children are attending publicly maintained or aided schools and about 21,000 are at independent schools. In Northern Ireland, 252,000 children (including 17,000 under and 20,000 over compulsory school age) are attending publicly maintained or aided schools; independent schools are few.

In England it is usual for boys and girls to be taught together in primary schools, but more often than not they attend separate secondary schools. Mixed schools are more common in Wales; and in Scotland all but a few city schools take both boys and girls. In Northern Ireland there are a number of separate schools for boys and girls, especially among schools under voluntary management, except for the smallest primary schools.

The majority of independent schools are for boys or for girls only, except in classes for small children. There are, however, a few schools which are co-educational.

In England and Wales three broad types of school are supported from public funds: *county schools* (the largest group) which are provided and maintained by local education authorities, i.e. their full cost falls on public funds; *voluntary schools* which have been provided by a voluntary body (usually of a religious denomination) but which are maintained by local education authorities; and *direct grant schools* which are completely independent of local education authorities but receive a grant-in-aid from the Ministry of Education. These last (the smallest group) mostly provide education of the grammar school type; they include some schools of ancient foundation.

In Scotland most of the schools supported from public funds are provided by education authorities and are known as *public schools* (in England this term is used for a type of independent school of which there are also a few in Scotland and Northern Ireland). There are also a few *grant-aided schools* (some of ancient foundation) conducted by voluntary managers which receive grants direct from the Scottish Education Department.

In Northern Ireland there are county schools, managed by local education authorities, and voluntary schools, which are grant-aided schools under voluntary management.

Primary Schools

A child's primary education continues until about the age of 11 in England, Wales and Northern Ireland and 12 in Scotland. There are some *nursery schools* and classes for children between 2 and 5 years old. In England and Wales there are *infant schools*, or departments, for all children between 5 and 7 and *junior schools* for those aged 7 to 11. In Scotland there are *primary departments* for children between 5 and 12 years old.

Secondary Schools

Public provision of secondary education is being greatly extended with the aim of providing for all children an education suited to their particular abilities.

England, Wales and Northern Ireland

In England and Wales the *grammar school* takes children who hope to reach a university and others likely to profit from an academic type of education. A large proportion of university students are recruited from these schools. *Secondary modern schools* form the largest group of secondary schools. They give a general education with a practical bias, closely related to the interests and environment of their pupils. The *secondary technical schools* are the smallest group and offer an education largely related to industry, including commerce, or agriculture. Each local education authority decides how the selection shall be made for its schools. The kind of secondary education a child is given usually depends on the results of a test taken as a rule at the age of 11. In some areas it is possible for children who are recommended by their head teacher to take it at the age of 10. Two of these types of education may be given in one school—a bilateral school; some authorities are experimenting with *comprehensive schools* providing all types of secondary education.

In Northern Ireland the *secondary intermediate school* is the equivalent of the secondary modern school in England and Wales. *Technical intermediate schools* in Northern Ireland offer the same facilities as secondary technical schools in England and Wales.

Most grammar school pupils remain until they are 16 years old, some till they are 17, 18 or 19. Most secondary modern pupils at present leave at the age of 15, but the number staying on until the age of 16 is increasing.

Scotland

Scottish secondary schools fall into two main categories, those providing courses extending normally to three years, generally called *junior secondary* schools, and those providing courses of five or six years, known as *senior secondary* schools. In each type of school the courses are intended to provide a general education, but they are differentiated in character to suit the varying needs and abilities of the pupils, and include literary, commercial, boys' technical, domestic and rural courses. While some schools are purely junior secondary and some purely senior secondary, there are also a number of schools of the 'comprehensive' type in which all kinds of courses, both junior secondary and senior secondary, are provided. Many schools also provide modified courses for pupils of limited ability for whom the normal courses are too exacting.

Promotion from the primary to the secondary school takes place usually between the ages of 11½ and 12½. The fitness of pupils to profit from the various types of secondary course is assessed on the basis of teachers' estimates of attainment, intelligence tests, and attainment tests, with due regard to the wishes of the parents. There is provision for an appeal to the Secretary of State for Scotland in the event of a dispute between the education authority and the parent and also for the reconsideration of original allocations where transfer to another course subsequently appears to be necessary.

Independent Schools

The largest and most important of the independent schools are known in England as 'public' schools, although not all schools classed as public schools are independent (those which are not are mostly direct-grant schools) and public schools form only a minority of all independent schools.

The *public school* is a characteristic English institution which has made a notable contribution to English education. Many public schools date from the sixteenth century, some are older (e.g., Winchester, 1382, and Eton, 1440), and many have some income from endowments. All are controlled by their own Boards of Governors. Public schools have emphasized the importance of character-building, and in these schools were developed the prefect system, whereby day-to-day discipline is largely controlled by the pupils themselves, and the house system, whereby a school is divided into groups of about 50, each under the care of a housemaster. The public school is also characterized by a high staffing ratio and a high proportion of pupils doing advanced work. A public school is often, although not necessarily, a boarding school. The usual age of entry to the independent public schools for boys is 13 and the leaving age about 18. There are some girls' public schools modelled to a certain extent on the public schools for boys.

There are also *preparatory schools*, most of them boarding schools, for boys aged from about 8 to 13 years of age (and some similar schools for girls) who are intending to enter public schools, and a wide range of other day and boarding schools covering every age group and grade of education and every variety of educational method. Some of these schools are owned and managed, often under a trust deed, by independent non-profit-making bodies. Others are privately owned by proprietors for whom the running of the school provides a living.

Secondary School Examinations

In 1951 the General Certificate of Education superseded the former School Certificate and Higher Certificate examinations in the secondary schools (State-aided and independent alike) of England and Wales. This examination, which may also be taken by candidates not attending school, is conducted at three levels (ordinary, advanced and scholarship). Most candidates are at least 16 years old on 1st September of the year of their examination, but a child can sit at an earlier age at the discretion of the headmaster or headmistress of the school. In the summer of 1954 some 20,000 children under the age of 16 took the examination.

In Scotland the courses in senior secondary schools lead to presentation for the Scottish Leaving Certificate at about the age of 17, although many pupils who are under 17 take the examination. The certificate, which can be taken only by pupils in attendance at Scottish schools, is awarded on examinations conducted by the Scottish Education Department.

In Northern Ireland the Junior Certificate Examination is taken at about the age of 15 and the Senior Certificate Examination, which is conducted at two levels, at about 17 years of age.

Teachers

Teachers are appointed by local education authorities or school governing bodies or managers. In England, Wales and Northern Ireland they are not subject to official control on questions relating to curricula or methods. In Scotland, schemes of work in primary and secondary departments are subject to the approval of one of Her Majesty's Inspectors, and no pupil may be presented for the Scottish Leaving Certificate examination unless he has followed a course approved by the Scottish Education Department.

In 1954 there was one full-time teacher to 27 pupils in publicly maintained primary and secondary schools in England and Wales; the figure was 24 for Scotland and 30 for Northern Ireland. The high birth rate at the end of the second world war is the chief of several factors in the present need for more teachers.

There are 154 teachers' training colleges in England and Wales. The usual training course lasts for two years but there are three-year courses for women taking housecraft or physical education. There are 23 university departments of education providing a one-year course for graduates. In Scotland there are four general training centres, two denominational training colleges and a college for women teachers of physical education. Courses are normally of one year's duration for graduates or the equivalent, and of three years for non-graduates. Northern Ireland has two general teacher training colleges, one university training department and three specialist colleges—one for training teachers of physical education, one for teachers of domestic science and one for teachers of art. The basic course in the general training colleges lasts three years.

The Education Departments, the universities, local education authorities and other bodies provide a variety of short courses for practising teachers. Teachers from schools in the United Kingdom go to a number of oversea countries each year under interchange schemes or schemes for temporary oversea posts.

Broadcasting and Visual Aids

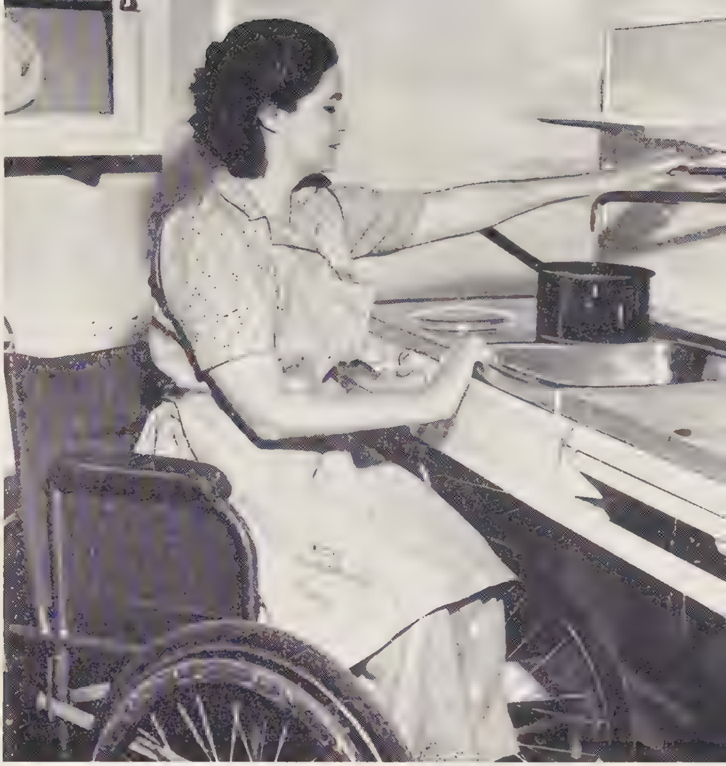
The School Broadcasting Department of the British Broadcasting Corporation sends out over 50 transmissions a week which reach more than 27,000 schools in the United Kingdom, over 70 per cent of the possible total. School broadcasting does not attempt to cover the whole school curriculum, or to replace the teacher, but to supplement existing work in the schools (see also p. 405).

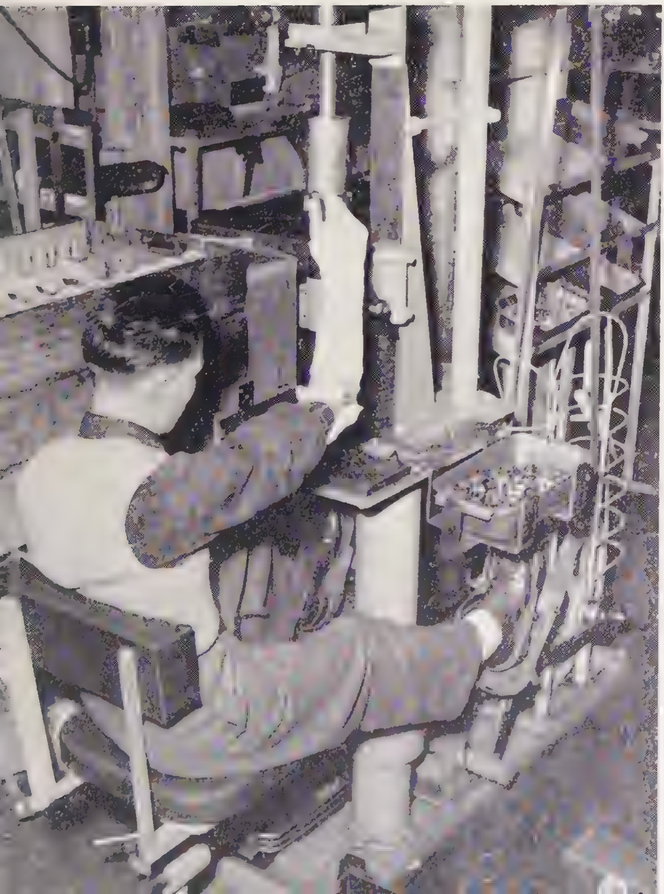
Visual aids to education—films, film strips, wall charts, pictures, and models—are being increasingly used in Britain's schools.

Religion in Schools

All children in county or voluntary schools, that is, all schools wholly or partly financed by local authorities, receive religious instruction and take part in a daily corporate act of worship unless their parents object. In all kinds of voluntary schools

Medical rehabilitation (see p. 333). At King's College Hospital, London, a kitchen unit for the assessment and training of disabled housewives has been built in the Occupational Therapy Department. Here a mixing tap that has lever handles and a swinging pipe makes it possible to fill saucepans without holding them over the sink.





Industrial rehabilitation (see p. 261). In the Industrial Rehabilitation Centre at Vauxhall Motors Ltd., Luton, surgeon and engineer co-operate to secure an early return to work and full recovery. Here an employee is doing productive work on a machine specially designed to give the necessary exercise to his fractured arm and leg.

Blood-giving session at a blood transfusion centre. Each volunteer gives one pint (see p. 334).

Instruction in cylinder-boring at Ramsay Technical Institute, Edinburgh. Many apprentices attend technical colleges in working hours (see p. 345).

there is opportunity for denominational religious instruction and in the county school religious instruction of an undenominational Christian character is given. Such undenominational instruction is also usually given in one kind of voluntary school—the controlled school.[1] Over a third of the schools maintained by local education authorities in England and Wales are voluntary schools and the majority of these are Church of England primary schools. There are nearly 2,000 Roman Catholic voluntary schools and smaller numbers belonging to other religious bodies. In county schools in Northern Ireland clergy have a right of access to give denominational instruction to children of their persuasion for a limited period each week. In Scotland, subject to safeguards for the individual conscience, matters relating to religious instruction are in the hands of the school managers, but there are a number of denominational schools conducted by education authorities.

Services in the school chapel and religious teaching are an essential part of the life and education of the independent public schools and most of these schools are linked to some religious denomination.

Health and Welfare of School Children

Physical education forms part of the general curriculum in all schools.

The School Health Service provides regular medical examination and certain free treatment for all children attending schools maintained by local education authorities. Treatment provision includes dental clinics and child guidance centres. (There are also child guidance clinics in the National Health Service.) In Northern Ireland the School Health Service is operated by the health authorities.

Milk (one-third of a pint a day in Great Britain and two-thirds in Northern Ireland) is given free to all children in schools who wish to have it, and the School Meals Service provides a daily dinner at a subsidized price (remitted where there is need) to nearly half the pupils in county and voluntary schools. Free transport is provided for children attending these schools who live more than a reasonable walking distance from their schools, defined as two miles for those under eight years (11 in Northern Ireland) and three miles for those over eight years.

Special educational treatment, either in special schools or otherwise, is provided for children between the ages of 5 (or less) and 16 who require it on account of any physical or mental handicap, including maladjustment. There are over 700 special schools in the United Kingdom, including hospital schools, day and boarding schools, and boarding homes for handicapped children attending ordinary schools.

School Building

An extensive building programme for education has been undertaken in Britain since the end of the second world war. Progress has been held in check by limited resources, but schools, together with factories and houses, have been given priority over the claims of less essential forms of building.

Although 2,704 new post-war schools had been completed in England, Wales and Scotland by June 1955, and 1,052 more were under construction, much remains to be done. Many war-damaged schools have had to be repaired or rebuilt. Entirely new schools, both primary and secondary, are needed to provide for the increased number of school children and their longer school life, and for the many post-war housing estates and for the new towns; new buildings are also needed to replace or improve those that are out of date and ill-equipped by modern standards.

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[1] The majority of voluntary schools are either 'aided' or 'controlled' schools. The aided school has more independence than the controlled school but it has financial obligations for part of its maintenance, whereas the controlled school has none.

Advantage is being taken of this opportunity to raise standards in public educational building and to introduce new ideas and methods in the design and construction of schools. Education authorities are using both traditional and new methods of building. Post-war school buildings are light and airy, with an imaginative use of colour and generous provision of practical rooms and space for outdoor games.

Local education authorities are responsible for providing the schools and other buildings needed for public education in their areas, but the central Departments exercise control by approving annual building programmes, framing regulations, fixing cost limits and approving or rejecting the authorities' plans; they also offer guidance to authorities in the form of building bulletins and in other ways.

UNIVERSITIES

In 1954 there were over 83,000 full-time students at universities or university colleges in the United Kingdom, of whom some 8,000 came from overseas. In Great Britain in October 1954 the number was 80,700; in 1938–39 it had been about 50,000, and it increased from under 38,000 to over 85,000 in the first five years after the war. Nearly three out of four students are now being aided from public funds or from scholastic endowments (see pp. 346–7).

The Education Departments have no jurisdiction over the universities, and their relations with them are concerned mainly with the training of school teachers, the provision of adult education, and the award of scholarships from public funds. The universities, though self-governing institutions, receive aid from the State in the form of direct grants from the Treasury made on the advice of the University Grants Committee, a committee appointed by the Chancellor of the Exchequer from persons with experience of university administration and education.

There are 16 degree-giving, self-governing universities in England and Wales: Oxford, Cambridge, London, Birmingham, Bristol, Durham, Exeter, Hull, Leeds, Liverpool, Manchester, Nottingham, Reading, Sheffield, Southampton and Wales; and two university colleges of lesser status. Oxford and Cambridge Universities, each with a number of colleges, are very old foundations, dating from the twelfth and thirteenth centuries, and are residential. Most of the other universities, three of which—London, Durham and Wales—also comprise groups of largely autonomous colleges, are mainly non-residential, though nearly all maintain some halls of residence. The tutorial system of individual tuition to supplement the lecture system is a traditional and valued feature of Oxford and Cambridge Universities, and is now being developed in the other universities and colleges of Britain.

There are four Scottish universities, all dating from the fifteenth or sixteenth century: St. Andrews, Glasgow, Aberdeen and Edinburgh. Northern Ireland has the Queen's University of Belfast which includes Magee University College, Londonderry.

Degree courses generally extend over three or four years, though in medicine five or six years are required. All the universities provide for post-graduate work and research. Courses in arts and science, pure and applied, are offered by all universities. Further reference to technology in the universities is made below and on pp. 370–71.

FURTHER EDUCATION

Outside the universities there is a great variety of further education, full-time and part-time, for men and women, and for boys and girls who have left school. Local education authorities are required to secure such provision, either directly or by aiding voluntary bodies and institutions. Vocational and non-vocational courses at all levels and in all subjects are available in technical, commercial and art colleges,[1] in evening institutes and in adult education classes. Increasing numbers of young persons are being released by their employers during working hours for part-time education, both vocational and general.

Evening classes for adults, in addition to the extra-mural courses provided by the universities, are organized by local education authorities and also by voluntary bodies, notably the Workers' Educational Association, and are aided by Government grants. There are six residential colleges directly aided by the Education Departments which provide one-year non-vocational courses for adult students, and since the end of the war more than 20 residential colleges have been established where adult students can take short courses lasting from a few days to a few weeks. The latter are either maintained or aided by local education authorities.

Technical and Technological Education

Technical education is related closely to the needs of the individual industry and of the individual student. In the technical colleges most of the students are taking part-time national courses while serving an industrial apprenticeship (see below).

Voluntary attendance at part-time courses, mainly of evening classes, is at present the most common form of vocational education. In recent years, however, many more employers than formerly have adopted the practice of allowing young workers paid leave of absence to attend technical colleges during working hours.

Technical colleges offer workers in industry training as technicians or as craftsmen, and some provide technological education of university standard. Part-time National Certificate courses are organized by the Education Departments and professional institutions, such as the Institution of Mechanical Engineers, in conjunction with the technical colleges. These courses normally last three years and students usually follow them between the ages of 16 and 19, giving about 200 hours a year to the course. A Higher Certificate takes a further two years' work. National Colleges have been established for a few relatively small and highly specialized industries.

Higher technical or technological education is provided, in close co-operation with industry, in both the universities and the technical colleges of Britain. Facilities for technological education have been greatly expanded since the second world war, and the Government is promoting further development by the planned expansion of institutions of university rank in London, Glasgow, Manchester, Leeds and Birmingham (see pp. 370–71). The Government also intends to develop ultimately 30 of the technical colleges run by local education authorities into advanced regional colleges, and at some colleges advanced courses, which have been specially approved, are being grant-aided by the Ministry at the rate of 75 per cent as against the normal 60 per cent.

In England and Wales there are some 300 technical colleges (other than art colleges) that provide for full-time students, and some 250 others that take part-time students only. About 150 of the technical colleges provide instruction in one or more technologies at an advanced level, that is of Higher National Certificate standard.

Scotland has a system of Central Institutions for higher technical education. These institutions provide courses in a wide range of technologies; particular attention is given to those connected with the main industries in their regions. The courses are linked with the more elementary training provided in the further education centres conducted by education authorities. There are close ties between the central institutions and the universities, and the institutions also award their own associateships or diplomas of a standard comparable with that of a university degree.

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[1] For further information on art colleges see p. 389.

In Northern Ireland the system is similar to that in England and Wales and includes courses leading to National Certificates. The Ministry of Education awards Junior and Senior Trade Scholarships to apprentices, to enable them to follow full-time courses of study at the Belfast College of Technology. The junior course lasts five months and the senior course eight months.

FINANCE

The bulk of expenditure on education in the United Kingdom comes from public funds. It is estimated for 1955–56 that total public expenditure on education, which is increasing, will be about £500 million for Great Britain. This includes expenditure on university education. Northern Ireland Exchequer expenditure on education is estimated at about £8¾ million for 1955–56. Of public expenditure on education other than in the universities, about 60 per cent comes from taxes and about 40 per cent from local rates. The proportion of university income provided by the Exchequer is increasing and in 1953–54 was over 70 per cent for Great Britain. Another 4 per cent was contributed by local authorities, 12 per cent by fees, and the balance by endowments and other sources.

In England and Wales no fees are charged to parents of children attending schools maintained by local education authorities, and books and equipment are supplied free. Local education authorities pay for free places in direct-grant schools and, to a lesser extent, for free and assisted places in independent schools which normally charge fees. A number of schools are able to offer some scholarships from endowments. In Scotland, education authorities may charge fees in certain schools provided that this does not prejudice the provision of free education for all who desire it. In Northern Ireland no fees are charged to parents of children attending any county or voluntary primary, intermediate or special school; qualified pupils attending both county and voluntary grammar schools receive scholarships from the local education authorities which cover the whole or most of the fees charged by the school.

Grants and Scholarships

England and Wales

Grammar schools receiving grants direct from the Ministry of Education still charge fees but they are required to offer each year, to pupils who have at any time previously attended a grant-aided primary school for not less than two years, free places to the extent of not less than 25 per cent of the previous year's admission to the upper school; and a further 25 per cent of the places must be put at the disposal of the local education authorities if they require them. Pupils occupying these latter places need not previously have attended a grant-aided primary school. Day pupils not holding free places are entitled to claim a remission of fees in accordance with an approved income scale, and the Ministry pays the governors of the school the amount of the fees so remitted.

Over recent years the number of scholarships and awards for university students has been greatly increased with the aim of ensuring that no able candidate shall be debarred from a university education by lack of means. Some 3,250 State scholarships for university honours degree courses were taken up by young students in 1954 besides 121 technical State scholarships and 25 mature scholarships for students over 25 years of age. In 1954 local education authorities in England and Wales awarded 10,779 university scholarships with maintenance grants. Numerous exhibitions and scholarships are also awarded from endowments by universities and colleges and private benefactions. The Ministry supplements university open scholarships and exhibitions as may be necessary.

Scotland

In Scotland the power of awarding bursaries and scholarships is confined in the main to the education authorities, who in exercising this power are required to comply with regulations made by the Secretary of State. There are no State scholarships, but the Secretary of State supplements scholarships at English universities won in open competition by Scottish students.

Northern Ireland

University scholarships in Northern Ireland are awarded either by the local education authorities or from endowment funds. The Ministry of Education awards State exhibitions. Supplementary awards are made by the local education authorities and not, as in England and Wales, by the Ministry.

YOUTH SERVICES

The object of the youth services in Britain is to provide for the leisure-time activities of young people and to offer them opportunities—complementary to those of home, formal education and work—for discovering and developing their personal resources, so that they may be better equipped to be responsible members of a free and civilized society. There is no regimentation of young people; they are free to join any of the youth organizations, or none, and the aim is that the facilities for recreation, educational pursuits and social contacts offered should be sufficiently varied to appeal to every type of boy and girl.

Responsibility for youth services is shared by the Education Departments, local education authorities and numerous voluntary organizations. There is no attempt to impose a system of uniformity or to create anything in the nature of a national youth movement. Youth groups have been developed mainly by voluntary organizations. Some of them now receive State aid but all retain their independence of action. The practice of democratic self-government has an established place in most youth organizations and service to the community is encouraged. The major voluntary youth organizations have memberships totalling over two million young people under 21 years of age.

The earliest of the youth organizations were formed during the nineteenth century and most of them, for example the *Young Men's Christian Association*, the *Young Women's Christian Association*, the *Girls' Friendly Society*, the *Boys' Brigade* and the *Church Lads' Brigade*, were religious in origin and purpose. Later organizations, such as the *Boy Scouts'* and *Girl Guides' Associations*, which, as movements, have no definite affiliation to a religious body although local groups are often attached to a church or chapel, also recognize the importance of spiritual values in the formation of character and seek to inculcate high ideals of personal conduct and of service to others.

Local education authorities have been indirectly concerned with youth services since 1918, and in 1939 the then Board of Education decided to give active encouragement to youth welfare. The Board urged local education authorities to stimulate the provision of leisure activities for young people, both by co-operating with voluntary agencies and by establishing *Youth Centres* and other recreational facilities of their own. The status of youth services as an essential part of the educational system, thus recognized in 1939, was confirmed by the Education Act of 1944 and the Education (Scotland) Act of 1945 and, today, all local education authorities are required to ensure that adequate facilities for the recreational and social needs of young people exist in their areas. In areas where voluntary youth organizations are well established, local education authorities are expected to co-operate with them, and where existing services are inadequate, to make provision themselves (usually in the form of Youth Centres). Most local education authorities now employ full-time paid youth organizers and have appointed local youth committees or councils, on which official and voluntary bodies are represented.

Education authorities also have powers to provide community centres for the use of people of all ages. Such centres normally provide a mixture of formal and informal further education. The centres are usually run by community associations, some of which are affiliated to the *National Federation of Community Associations*.

Over twenty voluntary youth organizations, each with at least 10,000 members between the ages of 14 and 20, belong to the *Standing Conference of National Voluntary Youth Organizations*.[1] There are also the youth organizations of the political parties. In addition, there are a number of bodies which, though not specifically youth organizations, cater for the welfare of young people by providing them with opportunities for physical training, holidays, camping and travel.

Finance is provided by voluntary subscriptions from members and others, by money-raising efforts by members, by grants from the great charitable trusts, by contributions from local authorities' rates and by direct grants from the Education Departments. About £1 million from the King George VI Memorial Fund is being spent by the King George VI Foundation on schemes for the benefit of young people.

Some Youth Organizations

The following examples are selected to illustrate the variety and wide scope of the services and activities provided by voluntary organizations in Britain concerned with the welfare of young people in their leisure hours. Other groups include the *Catholic Young Men's Society*, the *Methodist Association of Youth Clubs*, and other religious groups; the *Co-operative Youth Movement*; and the *Welsh League of Youth*. In Scotland there are Scottish associations corresponding to several of the national associations.

Scouts and Guides

The *Boy Scouts' Association* and the *Girl Guides' Association*, which were founded by Lord Baden-Powell in 1908 and 1910 respectively, are based on the principle of the development of character and good citizenship in boys and girls by training them in habits of observation, self-reliance, self-discipline, loyalty and thoughtfulness for others, and by promoting physical fitness and a knowledge of useful crafts. Both associations have world-wide affiliations, and are undenominational and non-political in character.

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[1] The Standing Conference of National Voluntary Youth Organizations was founded in 1936 as a consultative body which takes action only in the name of its constituent members and with their consent. Its member organizations have a common aim in the development of character through educational and recreational interests, and the promotion of the physical, mental and spiritual training of their members. The Scottish Standing Conference of Voluntary Youth Organizations is the corresponding body in Scotland.

In 1955 there were 230,000 Boy Scouts (aged 11 to 18 years) and Rovers (over 17½ years) in the United Kingdom. This total includes Sea Scouts and Air Scouts. There were also 226,000 Wolf Cubs (aged 8 to 11 years).

At the end of 1954 there were 228,000 Girl Guides in the United Kingdom, including Sea and Air Guides and also Cadets and Rangers (aged 16 to 21 years). There were also 214,000 Brownies (aged 7 to 11 years).

Brigades

The *Boys' Brigade*, which was founded in 1883, is essentially a Protestant religious organization. Every company must be affiliated to a church, and regular attendance at church is a vital principle. Companies have regular drill parades, there are club rooms for games and other pastimes, and organized camping during the summer months is a feature of the movement.

The *Church Lads' Brigade*, which is a similar organization, is attached to the Anglican Church. Companies are formed in parishes under the direct control of the incumbent.

The *Girls' Life Brigade* is an inter-denominational uniformed organization for girls. Each company is connected with a church or other religious organization.

National Associations of Clubs

The *National Association of Boys' Clubs* and the *National Association of Mixed Clubs and Girls' Clubs*, which are non-sectarian, provide educative recreational facilities for young people designed to develop their mental, physical and spiritual well-being. Discussion groups, handicrafts, drama, music and many other activities are encouraged.

Pre-Service Organizations

Pre-Service organizations, which comprise the *Sea Cadet Corps*, the *Army Cadet Force*, the *Combined Cadet Force* and the *Air Training Corps* (see pp. 106, 111 and 114), have special connections with the respective Service Departments and receive financial grants from them. The training of boys for entry into the armed forces, provided by these organizations, is linked with training to promote their social, educational and physical development. Similarly the *Girls' Training Corps*, the *Girls' Nautical Training Corps* and the *Women's Junior Air Corps* prepare girls for entry into the Women's Services.

Young Farmers' Clubs

The *National Federation of Young Farmers' Clubs* (see p. 161) instructs its members in agricultural subjects and rural crafts, and each club has the support of an advisory committee on which local farmers are represented.

Outward Bound Trust

The Outward Bound Trust maintains mountain schools at Eskdale and at Ullswater, in the Lake District, and sea schools at Aberdovey, in North Wales, and at Burghead, Morayshire, in Scotland. In these schools it provides four-week character-building courses for boys from all walks of life but mainly for young employees in industrial firms sent at their employers' expense. The boys live as a community and are given the opportunity to assess and develop their qualities of courage, endurance, initiative and self-discipline in learning the techniques of sailing or of rock-climbing, by various physical tests, and in expeditions over rough hill country lasting several days. Similar, but modified, courses for girls are held at Bisham Abbey, in Berkshire, and at mountain centres.

Youth Hostels

The *Youth Hostels Association*, which was founded in 1930, seeks to promote a greater knowledge of, and love for, the countryside. It caters for young people of limited means by providing hostels where they can stay for one or two shillings a night when on walking or cycling tours or canoe trips. The movement has a membership of over 180,000 and maintains 292 hostels in England and Wales. There is a membership in Scotland of some 29,000 with 92 hostels, and of about 4,000 in Northern Ireland where there are 18 hostels. The Association is linked closely with similar organizations in other countries and, through its International Travel Bureau, encourages and facilitates the exchange of visits.

Political Party Youth Groups

Youth groups which are junior branches of the political parties in the United Kingdom are maintained by each of the leading parties to spread knowledge of party policy among young people, and to obtain party recruits. Members are encouraged to form debating societies and to engage in other social activities, and they are trained to take an active part in party politics. They receive no aid from public funds.

Youth Sections

Youth Sections are maintained by several other adult voluntary organizations which have a particular function; for example, the *British Red Cross Society* and the *St. John Ambulance Brigade* train their young members in first aid and home-nursing.

The Central Council of Physical Recreation

The Central Council of Physical Recreation, on which the leading voluntary youth organizations are represented, is grant-aided by the Ministry of Education and by the corresponding Department in Northern Ireland. It was founded in 1935 to improve the physical and mental health of the community through physical recreation. The Central Council arranges training courses, provides instructors in games and athletics, plans and judges athletic competitions and organizes demonstrations of sport and physical training. It also arranges training holidays for young people in its three National Recreation Centres. The corresponding body in Scotland is the Scottish Council of Physical Recreation.

The National Playing Fields Association

The National Playing Fields Association is a central organization, founded in 1925, with 54 affiliated county and city associations throughout England and Wales, and branches covering Scotland and Northern Ireland. The Association encourages the provision and preservation of public playing fields and playgrounds for the present and future needs of all sections of the community and advises local authorities and sports organizations on the acquisition, layout, construction and use of grounds. It also keeps a watch on all matters relating to playing fields, endeavours to stimulate recreational activity by grants, publications and persuasion, carries out technical research and pioneers new ideas.

XI. HOUSING AND PLANNING

PROBLEMS AND ADMINISTRATION

The problems of housing and of planning the use of land in Britain have their origins mainly in the sevenfold expansion of the population in the last two and a half centuries and its concentration in industrial urban areas. This gave rise to overcrowding in the older houses in the centres of cities and to the unplanned spread of outer suburbs. Overcrowding persisted in spite of a high rate of building in the nineteen-thirties and was aggravated by the second world war which left behind increased needs and new opportunities for housing and planning. New building had virtually ceased for six years, while the United Kingdom population had risen by nearly 1½ million; meanwhile, approximately one house in every three had been destroyed or damaged by enemy action.[1]

Ministerial Responsibility for Housing and Planning

The Minister of Housing and Local Government is responsible in England and Wales for formulating housing policy, for housing standards and for general supervision of the housing programme. In planning, the Minister is responsible for implementing general policy regarding the use and development of land throughout England and Wales, and for the direction and guidance of local planning authorities, the New Towns Development Corporations and the National Parks Commission in the carrying out of their planning functions.

In Scotland the same responsibilities fall on the Secretary of State for Scotland.

In Northern Ireland the Minister of Health and Local Government is responsible for housing and planning.

The Ministry of Works acts as production authority in Great Britain for certain building materials and equipment; it is responsible for general building efficiency and for relations with the building industry, and it is primarily responsible for keeping building research under review. The Ministry of Labour and National Service is concerned with the supply of labour to the building industry and its ancillary trades; and the Building Apprenticeship and Training Council reviews the industry's long-term labour needs and the measures necessary to maintain the skilled labour force. The Agricultural Departments are responsible for advising on the agricultural value of land proposed for housing or other development. The Board of Trade is responsible for regulating the distribution of industrial development. An Inter-Departmental Committee on Services' Land Requirements meets to harmonize Service and civilian needs and proposals for land use.

HOUSING

The census of April 1951 showed that 14·5 million private households in Great Britain were occupying 13·3 million houses and flats. These figures do not imply a need for exactly 1·2 million new dwellings, but they give an indication of the size of the problem. Some sharing households do not want a structurally separate dwelling, but there are other households which would gladly divide if separate accommodation were available. In addition, many old houses are in danger of becoming uninhabitable.

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[1] In 1941 a scheme of payment for damage by enemy action to land and buildings in the United Kingdom was set up and the War Damage Commission was appointed to administer it.

PROGRESS AND POLICY

In 1954 over 350,000 houses were built in Britain. By 30th June 1955, 2,235,651 new houses, permanent and temporary, had been built in Great Britain since early 1945, and 287,660 more were under construction. In all, over 2½ million families were rehoused in this period by new building, repair of uninhabitable houses and conversion. Local authorities in England and Wales had built 1,354,674 of the total number of new houses, and local authorities in Scotland, with the Scottish Special Housing Association (see p. 353), had built 220,000.

In addition, in Northern Ireland some 56,000 houses were built between January 1945 and the end of June 1955, including 21,000 permanent houses built by local authorities and 14,000 by the Northern Ireland Housing Trust (see p. 353).

New Building

It has been the aim of post-war Governments to provide as many new houses as the country's building resources will allow. Since 1951 the Government's target has been to build at least 300,000 houses a year. Within this number a substantial proportion are provided for letting and the remainder built for occupation by their owners. Until November 1954 new building was controlled by licensing regulations, but these had been relaxed over the course of the preceding two years to enable a larger number of houses to be built by private enterprise. In November 1954 licensing was finally abolished. In the ten years since the end of the second world war local authorities have concentrated mainly on providing houses for letting to meet the general needs of their districts, i.e. to provide homes for families without a house of their own, and to relieve overcrowding. In future local authorities are likely to devote an increasing proportion of their new building to the rehousing of families displaced by slum clearance.

Slum Clearance

Because of the need to concentrate on providing new houses for families without a separate home of their own, slum clearance was virtually in abeyance for some years after the end of the war, and the number of houses demolished was relatively small. Early in 1954 local authorities were informed that, in view of the amount of new housing provided since the war, it had now become an essential part of the Government's housing policy that the authorities should take up again, as a matter of urgency, the campaign of slum clearance which the war interrupted. Each local authority should determine the pace and phasing of a slum clearance programme, having regard to the circumstances of its area, and should put such a programme into operation as soon as possible.

In some areas the number of slum houses is so large that it would not be practicable to replace all of them within five years or so. The Housing Repairs and Rents Act, 1954, and the corresponding Scottish Act, therefore contain provisions which empower local authorities to acquire, and to defer the demolition of, houses unfit for human habitation which are destined for clearance but which cannot be dealt with for some time to come, because the local slum problem is so large. To make conditions more tolerable for the occupants, local authorities are empowered to patch these houses. It has been made clear that temporary retention and patching are to be the exception and not the rule—to be done only in the comparatively few areas which have the largest problems—and that these houses are to be demolished as early as possible; patching is not intended to prolong the life of the slums, or to be an alternative to slum clearance. Exchequer contributions are available to meet part of the cost of acquisition and patching.

HOUSING AUTHORITIES

While responsibility for housing policy and for the general execution of the housing programme rests with the Minister of Housing and Local Government (in Scotland the Secretary of State for Scotland, and in Northern Ireland the Minister of Health and Local Government), local authorities have executive responsibilities as set out in the following paragraph for housing in their areas (including building by Housing Associations, which are non-profit-making bodies providing houses mostly for letting rather than for sale, and Self-Help Groups, which build in their spare time for the benefit of members). In England and Wales and Northern Ireland these authorities are the councils of county boroughs, boroughs (including metropolitan boroughs), urban districts and rural districts, the London County Council and the Common Council of the City of London. In Scotland all town and county councils are housing authorities.

Housing Powers and Duties of Local Authorities

These authorities are responsible for ensuring as far as possible that housing conditions in their areas are satisfactory. At present this responsibility principally involves the provision by the local authorities themselves of houses for letting, by new building or by the conversion of existing buildings. In England, Wales and Scotland these local authority houses may also be sold on certain conditions, under a general consent given by the Minister, to occupying tenants or to persons in need of a house for themselves. In addition, local authorities must ensure that other dwellings in their areas comply with certain standards of fitness, design, construction and equipment.

Scottish Special Housing Association

The Scottish Special Housing Association, a statutory body, assists local authorities in their housing programmes. It has built about one in seven of the permanent post-war houses completed in Scotland. The Association is financed entirely from Government funds and is under the general direction of the Secretary of State for Scotland.

Northern Ireland Housing Trust

The Northern Ireland Housing Trust, a statutory body, was established in 1945 for the purpose of erecting houses for letting to supplement the activities of local authorities. The Trust has built about a quarter of Northern Ireland's post-war houses.

BUILDING METHODS AND STANDARDS

Much research has been and is being done on housing design, construction and equipment. Components have been standardized and new methods and materials have been evolved to ease the strain on skilled workers and traditional materials.

Non-Traditional and Temporary Housing

To help to meet the immediate post-war need, the Government provided over 157,000 temporary factory-built houses for erection on sites provided by local authorities in Great Britain. Within four years from April 1945 the programme had been completed at a cost of £216 million for the houses and their erection. In addition, 2,000 temporary houses were erected in Northern Ireland.

A number of new forms of construction for permanent houses were also developed with practical encouragement from the Government during the experimental period. Some types were steel-framed, some of pre-cast concrete, some concrete poured *in situ*, and some timber-framed. A number of proved new systems have been able to compete successfully with traditional house-building methods and these have been making a considerable contribution to the housing programme.

Standards for Housing

Local authorities are now building better houses than before the second world war. The central Departments have issued manuals of guidance for local authorities setting standards of space, structure, design and equipment for different types of houses, and describing how estates can be laid out attractively while saving land and money, by the use of new and improved types of layout.

HOUSING FINANCE

Costs and Subsidies

The cost to a local authority of building the average three-bedroom traditional house in England and Wales (with a superficial area of 1,050 square feet) was about £1,450 for houses completed in October 1951, with another £240 for land, roads and services and professional fees. Since 1951 new designs have been introduced to achieve economies in space and to keep down the cost per house. The average house completed in 1954 was about 915 square feet in area and cost about £1,385 to build.

To enable local authorities to let their houses at reasonable rents in spite of the high cost of building, subsidies are provided under the Housing (Financial and Miscellaneous Provisions) Act, 1946, and the Housing Act, 1952. Housing subsidies have existed since 1919, but since the second world war they have been on a more generous scale than before. All subsidy rates are reviewed annually. On 1st November 1955 a Bill was introduced to reduce, and to provide for the eventual abolition of, the Exchequer subsidy on houses approved by the Minister for building by local authorities to meet general needs. The reduction proposed is from £22 1s. to £10 a year. The subsidy would continue as before for houses built to replace slum dwellings, and at the increased rate of £24 for certain other houses, for example houses built by development corporations in the new towns. Local authorities may supplement the Exchequer subsidies. Special rates of subsidy are provided for special types of housing, including houses for agricultural workers, houses in poor areas, and flats and houses on expensive sites, also where expensive works are necessary in order to minimize the risk of subsidence due to mining operations.

The Housing Act, 1949, provides Exchequer assistance for the improvement of existing housing or adaptation of buildings for housing by local authorities or private owners. Grants can be made by local authorities, with Exchequer assistance, to persons converting or improving existing buildings for housing at a cost of over £100 a dwelling. The grants may amount to half the cost, with a maximum of £400.

There are certain technical conditions which the dwellings as improved or converted must satisfy to ensure that public money is only spent on property that will provide satisfactory accommodation for a sufficient period. The Housing Repairs and Rents Act, 1954, considerably eased the conditions attaching to these grants, and it is the Government's intention that they shall be much more widely employed in the future, in order to make the utmost use of the nation's stock of existing houses. A subsidy for residential hostels built by local authorities or by certain other bodies is also granted under the Act of 1949.

Subsidies are similarly provided in Scotland, though the amounts are generally higher owing to the different rating system and higher costs.

In Northern Ireland annual subsidies are paid for 60 years to local authorities, the Northern Ireland Housing Trust and Housing Associations. In addition 'lump sum' subsidies are paid to private persons who build houses for letting or for owner occupation. Under the Housing on Farms Act (Northern Ireland), 1950, grants are available for the provision of new houses and for the reconditioning of existing premises to accommodate farmers and approved workers.

House Purchase Schemes

Loans to enable persons to buy their houses by a system of instalment purchase extending over several years are provided by some local authorities as well as by building societies, certain insurance companies and other financial institutions.

Building societies (see also p. 295) have not actually built houses for over 100 years, but for a long time they have been the most important source of finance for private building.

Many local authorities also operate a scheme whereby they guarantee part of the loan made by a building society so that an advance greater than normal (up to 95 per cent of the value of the house) may be made to the purchaser. The Exchequer undertakes to share any liability local authorities may incur under this scheme.

Rent Control

The great majority of the privately owned houses in Great Britain which are let are subject to rent control. Houses owned by local authorities, New Towns Development Corporations, Housing Associations, and the Scottish Special Housing Association are, in general, free from control, as are new houses completed since 30th August 1954.

The first Rent Restrictions Act was passed in 1915. The Acts now in force, either wholly or in part, are the Rent and Mortgage Interest Restrictions Acts, 1920 to 1939, the Landlord and Tenant (Rent Control) Act, 1949, and the Housing Repairs and Rents Acts, 1954.

These Rent Restrictions Acts, which apply, with few exceptions, to all unfurnished dwellings below a certain rateable value, limit the rent a landlord may legally recover from a tenant, while at the same time giving the tenant in most circumstances security of tenure. The Acts also make illegal most premiums for the grant of a tenancy of rent-controlled premises. Landlords restricted in this way are themselves protected against undue increases in rates of mortgage interest and against the calling in of mortgages so long as they pay the restricted interest due. This protection applies to anyone buying a controlled house on mortgage. The standard rent of each controlled house is fixed by reference to the rent payable on a certain date (for 'old control' houses 3rd August 1914; for 'new control' houses 1st September 1939). The standard rent of 'old control' houses may be raised by increases permitted under the Rent Act of 1920. The standard rent of a house let for the first time since 1st September 1939 is the rent at which it was first let, except where this rent is reduced or increased by a rent tribunal, which on the application of either party will determine a reasonable rent.

The Housing Repairs and Rents Acts, 1954, allow landlords to increase their rents to pay for repairs, subject to certain conditions and to a maximum limit. This measure is part of the Government's policy of maintaining the stock of existing dwellings.

The rents payable for furnished accommodation in England and Wales are controlled by the Furnished Houses (Rent Control) Act, 1946. The Act provides for the control of rents of houses or parts of houses let furnished or with services, without limitation by rent or rateable value. Local rent tribunals, appointed for the purpose, determine the rents of furnished lettings in cases referred to them by either party or by the local authority. Similar legislation for controlling rents of furnished lettings was passed for Scotland in 1943.

Somewhat similar measures of control apply in Northern Ireland. In 1951, however, legislation was passed which permitted prescribed increases in the rent of controlled houses provided they were maintained in good and tenantable repair.

TOWN AND COUNTRY PLANNING

The land of Britain is one of the most densely populated areas in the world and it is therefore of vital importance in the public interest that competing claims to its use should be settled in such a way that the necessary balance between them is maintained.

From 1909 onwards, the idea of the planned use of land was given a degree of expression in successive Acts of Parliament, but because the pattern of development over much of the country had already hardened into large unplanned urban concentrations (as a result of the industrialization processes of the previous century) the powers granted to planning authorities by the early Acts were inadequate for the task in hand.

The twenty years between the two world wars were also decades of expansion in industry, engineering and house-building; population was increasing, and there was a general movement towards better standards of living, and consequently a greater need for systematic planning than had hitherto been required. At the beginning of the nineteen-thirties, a major effort was made to consolidate and strengthen planning law and to extend the planning powers of central and local authorities to the point at which they could exercise effective control. Despite this effort, which culminated in the Town and Country Planning Act, 1932, inter-war planning legislation had only a limited effect, mainly because it failed to deal adequately with the question of compensation, which had always been an obstacle to satisfactory planning. By the nineteen-twenties, the principle had been accepted that the property of an individual might be subjected to restrictions in the public interest, provided that he received some compensation out of public funds for any deprivation which went beyond the requirements of good neighbourliness that he might suffer thereby. The method adopted for implementing this principle, however, placed so heavy a financial burden on planning authorities that they were often prevented from, or at least hampered in, carrying out their work. As a result, at the time of the outbreak of the second world war, many of the outstanding problems of land use remained unsolved.

Renewed efforts were made to deal with these problems during the course of the war. Between 1937 and 1942 three expert committees were appointed to study and report upon (*a*) the unregulated growth and spread of industry, (*b*) the hampering of planning by the financial and administrative difficulties of compensation and betterment and (*c*) the encroachment of urban development upon the countryside. After the war, other committees studied the question of New Towns and National Parks.

Almost all the principal planning recommendations of these committees have now been incorporated in Acts of Parliament, as follows: the Distribution of Industry Act, 1945; the New Towns Act, 1946; the Town and Country Planning Act, 1947; the Town and Country Planning (Scotland) Act, 1947; the National Parks and Access to the Countryside Act, 1949; the Town Development Act, 1952; the Town and Country Planning Act, 1953; the Town and Country Planning Act, 1954; and the Town and Country Planning (Scotland) Act, 1954.

The Town and Country Planning Acts

The Town and Country Planning Act, 1947, and the Town and Country Planning (Scotland) Act, 1947, are comprehensive and radical measures which provide a framework or pattern of land use for the whole of Great Britain (the Acts do not apply to Northern Ireland (see pp. 362–3). Their main purposes are:

1. To co-ordinate planning throughout the country by means of development plans against which day-to-day development can be considered.
2. To bring development (with certain exceptions) under control by making it subject to the permission of a local planning authority or of a central Government Department.
3. To extend both the powers of public authorities to acquire and develop land for planning purposes and the scope and scale of grants from central funds to local authorities towards carrying out the acquisition and clearing of land.
4. To deal with certain specific problems of amenity, e.g., the preservation of trees and woodlands and of buildings of special historic or architectural interest, and the control of the display of advertisements.

The 1947 Acts were also intended to solve the compensation-betterment problem; and, to this end, they provided for the transfer of development values in land to the State, the establishment of a system of 'development charges' payable before development could take place by any person whose land was increased in value by the grant of planning permission to develop, and the setting up of a £300 million fund from which payments could be made to owners whose land was depreciated in value by the passing of the Acts. It was hoped that by these provisions the pre-war obstacles to effective planning might be removed; but, in the event, serious difficulties were encountered in the working of the system, due mainly to the fact that the development charge became in effect a tax on development. The financial provisions of the 1947 Acts have therefore been amended in three subsequent Acts: the Town and Country Planning Act, 1953, which abolished the development charges and suspended payment from the £300 million fund; and the Town and Country Planning Act, 1954, and the Town and Country Planning (Scotland) Act, 1954, which provided a new scheme for the payment of compensation for depreciation in land values and a new basis of compensation for public acquisition. Under the terms of the Acts, claims for compensation out of the £300 million fund form the basis for all future compensation payments, but payments will not actually be made unless and until loss is suffered. Since development charges have been abolished, owners will normally be able to realize the full value of their land on the open market and compensation will, in fact, become payable only when land is acquired by a public authority or restricted against development. On compulsory acquisition, compensation is paid for development value, only if a claim on the

£300 million fund had been established or could have been established, if made, and up to the value of the claim. Loss of development value through the imposition of planning restrictions, other than restrictions in the interests of 'good neighbourliness', is to be met by the State, in order that local planning authorities shall continue to be relieved of the burden of paying the compensation for which they were responsible until the passing of the 1947 Acts.

The Acts also provide a transitional system of payments, again based on claims, to redress the financial effects on owners of land of the provisions of the 1947 Acts and also a simplified and extended system of planning grants to local planning authorities to replace that of the 1947 Acts.

Development Plans

Under the terms of the 1947 Acts, local planning authorities in England and Wales and in Scotland are required to prepare, and submit to the Minister of Housing and Local Government and to the Secretary of State for Scotland respectively, development plans covering the whole of their districts, based on a careful survey of physical and other resources; all but three of those in England and Wales and many more than half of those in Scotland have already done so. The local authorities for the purpose are: in England and Wales, the county councils, the county borough councils, or, where necessary, joint planning boards; and in Scotland, the councils of counties and of large burghs, and the councils of the two small burghs of St. Andrews and Thurso. Provision is made in the Acts for public inquiry before any plan receives ministerial approval, so that persons whose land is affected may have an opportunity to state their case; and for a five-yearly revision of development plans. Individual plans for the reconstruction of parts of many of the large towns and cities in Great Britain have also been drawn up and approved, and in many cases considerable progress has been made. By the end of 1954 work valued at about £20 million had been completed in England and Wales. By the end of September 1955, in the City of London, projects valued at £10 million had been completed, and work valued at £35 million was under construction.

The Distribution of Industry

The Distribution of Industry Acts, 1945 and 1950, and the Town and Country Planning Acts, 1947, contain provisions to control the general location of industry throughout the country. Under the terms of the Distribution of Industry Act, 1945, the Board of Trade, as the responsible Department has wide powers to promote industrial development in the Development Areas,[1] i.e. areas in Britain which, in the past, have been peculiarly liable to severe unemployment in times of depression owing to their dependence for employment and prosperity on a few basic industries (see pp. 128–9). The Board of Trade is also responsible, under the terms of the Town and Country Planning Acts, 1947, for certifying that any proposed industrial development involving the erection of industrial buildings of more than 5,000 square feet can be carried out consistently with the proper distribution of industry, before permission to develop can be given by the local planning authorities. General problems of industrial development are dealt with jointly by a number of Government Departments, but the main responsibility for controlling the siting of industry as apart from its general location rests with the local planning authorities, for it is their duty to ensure that industrial development fits properly into existing and expanding communities and is consistent with the best use of land.

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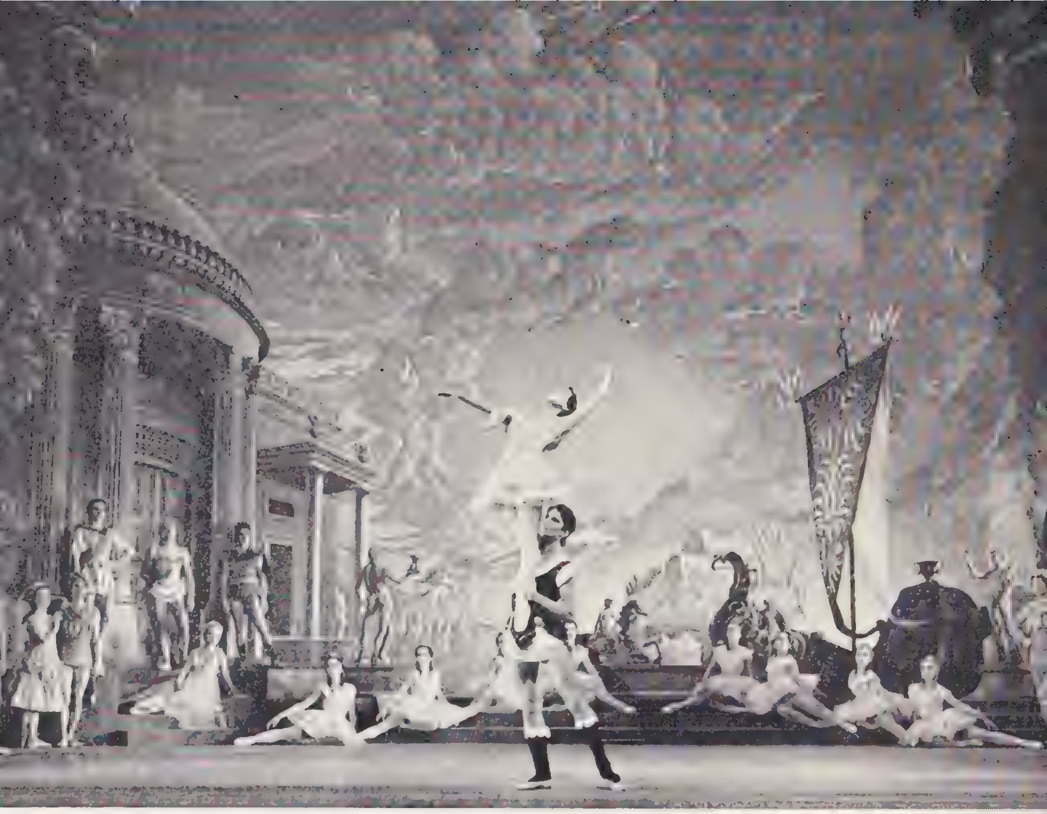
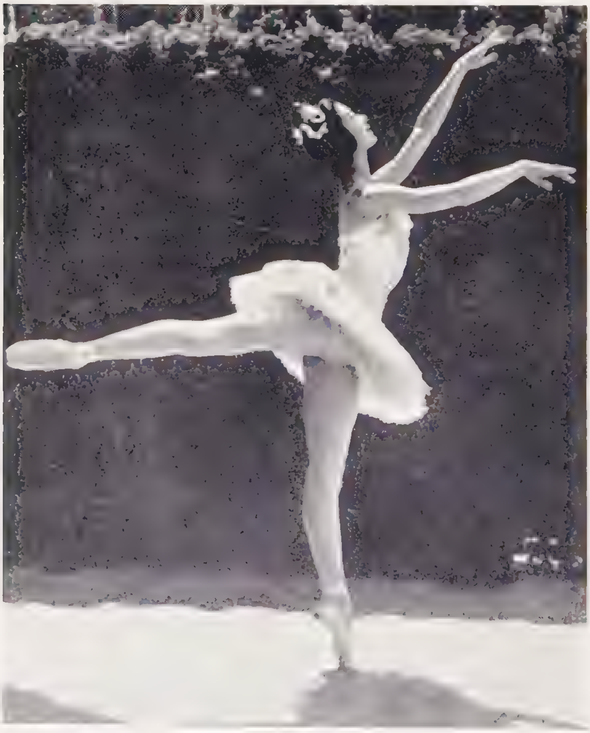
[1] All action in connection with development areas in Scotland is taken by the President of the Board of Trade and the Secretary of State for Scotland, acting jointly.

Salisbury Cathedral. The spire of this thirteenth-century cathedral was built in the fourteenth century. It rises to a height of 400 feet.

The fifteenth-century parish church in the village of Widecombe-in-the-Moor, on Dartmoor, Devon.



Sadler's Wells Ballet (see pp. 397–8). A scene from *Sylvia* at Covent Garden Opera House. (Choreographer, Frederick Ashton; décor by Robin and Christopher Ironside.)



Margot Fonteyn, prima ballerina of the Sadler's Wells Ballet, as Princess Aurora in *The Sleeping Beauty*. She is also seen above, with Michael Somes.

The New Towns

The New Towns Act, 1946, gives the Government powers to create new towns when it is in the public interest so to do. Under the terms of the Act, the Minister of Housing and Local Government and the Secretary of State for Scotland, who are the responsible ministers, may, after consultation with the local authorities concerned, make an order designating any area of land (which might include as its nucleus the area of an existing town) as the site of a proposed new town. Once the site has been designated, the responsible minister appoints a Development Corporation (consisting of a chairman and up to eight other members) to be responsible for the development of the new town. One of the first tasks of the Development Corporation, when appointed, is to prepare a master plan which becomes the basis for development proposals, each of which covers a part of the area. Every proposal must be submitted to the responsible Minister who must consult the local planning authority and, together with the Treasury, must be satisfied with the proposal on economic grounds before giving approval.

The development corporations have powers in general (subject to the consent of the Minister of Housing and Local Government or the Secretary of State for Scotland) to acquire, by agreement or compulsory purchase, any land or property necessary for their purposes. They may provide housing, commercial and industrial premises, estate roads and sewers and other buildings essential for the development of the towns; and, in certain circumstances, they may make provision for main services. In England and Wales, the Minister of Housing and Local Government has made a special development order to exempt the development corporations from the necessity of obtaining planning permission from the local planning authorities; but in Scotland, in the absence of a similar order, permission to develop has to be obtained from the local planning authority.

The capital cost of developing the new towns is advanced to the corporations from public funds and must be repaid on terms approved by the ministers with the concurrence of the Treasury. The corporations must submit their reports annually to the Minister or to the Secretary of State for Scotland, who are responsible for laying them before Parliament; the accounts of the corporations must be audited annually and are then presented to Parliament by the Comptroller and Auditor General.

When the purposes for which development corporations are established have been substantially achieved, the corporations are to be dissolved and the towns handed over to the appropriate local authorities, on terms settled by agreement or after reference to the House of Commons.

There are 12 new towns in England and Wales and two in Scotland.[1] Eight of these—Basildon and Harlow in Essex; Hemel Hempstead, Stevenage, Hatfield and Welwyn in Hertfordshire; Crawley in Sussex; and Bracknell in Berkshire—are designed to help in absorbing excess population from the Greater London area; four--Corby in Northamptonshire; Aycliffe and Peterlee in Durham; and Cwmbran in Monmouthshire—are to serve the special needs of their areas. Of the Scottish new towns, East Kilbride in Lanarkshire is designed to take the surplus population from Glasgow; and Glenrothes in Fife to provide housing and other facilities for the families of miners transferring to an area of expanding mining development.

In spite of the fact that the development corporations have been somewhat handicapped by shortages of materials and labour and by restrictions on capital investment, their work represents a notable achievement in the translation of planning into reality. By the end of September 1955 the total population of the new towns in England and Wales, designed to be 545,000 when the towns are completed, had reached the figure of approximately 260,000 (including the people previously living in the area); a total of 34,300 houses had been built by the development corporations with a further 12,500 under construction; 190 factories had been established and a further 58 were being erected; 465 shops had been completed and 245 more were being built; 63 schools had been finished and 33 more were under construction. Many miles of roads have been laid, and large main sewerage works have kept pace with housing needs.

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[1] A third Scottish new town, Cumbernauld, near Glasgow, was designated in December 1955.

In the Scottish new towns, by the same date, 4,578 houses had been built by the development corporations with a further 1,675 under construction; 44 shops had been completed and 31 were under construction; four new schools were in use and the building of a further five was in progress; and the extension of communications and public services was under way.

Under the New Towns Acts of 1946, 1952, 1953 and 1955, Parliament approved a consolidated fund of £250 million to provide for advances to the development corporations for work on the new towns. By September 1955, £156 million of expenditure from this amount had been approved by the Minister of Housing and Local Government and the Secretary of State for Scotland.

National Parks, Access to the Countryside and Nature Conservation

The National Parks and Access to the Countryside Act, 1949, provided for the designation of a number of extensive areas of beautiful and relatively wild country in England and Wales as National Parks. The characteristic landscape of these areas is to be carefully preserved, and facilities for open-air recreation are to be improved or provided.

A National Parks Commission for England and Wales was set up by the Act of 1949, and by the end of October 1955 its work had resulted in the establishment of the first eight of the 12 National Parks recommended by the National Parks (England and Wales) Committee, which reported in 1947. The Commission has also submitted, to the Minister of Housing and Local Government, Orders designating most of the upland country of Northumberland (from the Cheviots in the north to the Roman wall in the south), and the Brecon Beacons (in South Wales), as National Parks.

The established parks are: the Peak District, the Lake District, Snowdonia in North Wales, Dartmoor in Devonshire, the Pembrokeshire Coast, the North York Moors, the Yorkshire Dales, and Exmoor in Somerset and Devon. These parks cover a total area of 4,333 square miles. Administrative systems are now in operation for six of the parks, as follows: the Peak District and Lake District National Parks are administered by Joint Planning Boards; for Dartmoor, the Pembrokeshire Coast and the North York Moors, special Park Planning Committees of the county councils concerned have been set up; while in Snowdonia, each of the county councils concerned with the National Park, i.e. Caernarvonshire, Merionethshire and Denbighshire, has a special Park Planning Committee of the county council in respect of that part of the Park which falls within its area, and a Joint Advisory Council tenders advice to the three councils in planning matters.

The Commission may also select other areas in England and Wales for designation as areas of outstanding natural beauty in order to keep them unspoiled. These areas may be less extensive than the National Parks and no special administrative system needs to be set up for their planning. The Commission has begun a review of these areas and is likely to designate the first in the near future.

A Scottish National Parks Working Party has considered all five areas recommended as National Parks in Scotland—the Trossachs, Glen Affric, the Cairngorms, Wester Ross (Loch Maree) and Glen Coe—with a view to their possible development under existing statutory powers, and has submitted to the Secretary of State for Scotland a report on each of these areas.

The Nature Conservancy (see p. 379) was given powers under the National Parks Act to acquire, by purchase, lease or gift, land or properties necessary for the furtherance of its objects. At the end of September 1955 there were 29 Nature Reserves in England and Wales. By the same date the Nature Conservancy, on the advice of its Scottish Committee, had established the first six national Nature Reserves in Scotland; of these the Cairngorms Reserve, which accounts for 39,639 acres of the total of 79,035 acres of reserves in the whole of Great Britain, is the largest reserve in Great Britain and one of the largest in Europe. The Conservancy has also been consulted by local authorities, using their own powers under the National Parks Act to set up local nature reserves.

The National Parks Act also provides for (*a*) a complete survey of all footpaths and bridle-ways in England and Wales to be a comprehensive national record of public rights of way and (*b*) long-distance routes connecting footpaths and bridleways as continuous rights of way. Individual surveys of footpaths are being carried out by parish and county district councils; on completion, they will be collated and published by the county councils. Responsibility for making proposals for the provision and maintenance of long-distance routes rests with the National Parks Commission; once the proposals are approved by the Minister of Housing and Local Government, it falls to the local authorities to give effect to them. By the end of October 1955 the provision of five routes had been approved: the Pennine Way, which runs from Edale in the Peak District to the Scottish Border, a distance of some 250 miles; a Pembrokeshire coastal path; a path along the north coast of Cornwall around Land's End to Penzance; an extension of this coast path from Penzance along the south coast; and a path running mainly along the line of Offa's Dyke, from the coast of Flintshire down the Welsh border country to Chepstow on the river Wye in Monmouthshire, a distance of 168 miles. The Commission is planning a further continuation of the Cornwall coastal path, from Minehead in the north of Somerset to Studland in the south, on the Dorset coast.

The Act also gives local authorities the task of surveying in their areas the access enjoyed by the public to open country, i.e. mountain, moor, heath, down, cliff and beach, and empowers them to improve such access, where necessary, by means of agreements with owners or by access orders. In the Peak District National Park agreements granting access to some 10,000 acres in the Kinder Scout area have been negotiated.

The Government is empowered, under the Bird Protection Act, 1954, to establish bird sanctuaries[1] in Great Britain. The first sanctuary to be established under the Act was the Humber Wild Fowl Refuge, in October 1955.

Preservation of Amenities

Responsibility for the preservation of the historic, scenic and architectural beauties of Great Britain (from tree preservation and the preservation of ancient inns to the protection of buildings against atmospheric pollution) is vested mainly in the Minister of Housing and Local Government, the Secretary of State for Scotland, and the various statutory planning authorities and commissions. The Ministry of Works, however, is also concerned, in that it is the Department responsible for the maintenance of royal parks and palaces and, in addition, is empowered by the provisions of the Historic Buildings and Ancient Monuments Act, 1953, to assist in the preservation of historic houses by making grants (after consultation with specially constituted Buildings Councils) for their upkeep together with their contents and their adjoining land. By September 1955, 241 such grants, totalling £742,378, had been approved towards the cost of urgently needed structural repairs to historic buildings in England, Scotland and Wales.

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[1] Other bird sanctuaries have existed in Britain for many years, in the care of naturalist societies and other bodies.

Unofficial amenity societies, wholly dependent upon the support of their members, include: the Council for the Preservation of Rural England, founded in 1926 to organize concerted action to secure the protection of rural scenery and of town and country amenities from disfigurement or injury; the Association for the Preservation of Rural Scotland, founded in 1927 for the protection of rural scenery and the amenities of country districts and towns and villages in Scotland; the Commons, Open Spaces and Footpaths Preservation Society; the Society for the Protection of Ancient Buildings; the Pilgrim Trust[1]; the National Trust for Places of Historic Interest or Natural Beauty in England, Wales and Northern Ireland[1]; and the National Trust for Scotland. The National Trust for England, Wales and Northern Ireland (which was founded in 1895 and by mid-1955 had nearly 54,000 members) is the largest landowner in the United Kingdom other than the State and State institutions. It has acquired, mainly through gifts, about a thousand properties, which it holds for the enjoyment of the public; it administers over 223,000 acres of land of great natural beauty (including 30,000 acres of woodland); and it owns many fine gardens. The National Trust for Scotland, which was founded in 1931 to promote the preservation of places of historic or architectural interest or of natural beauty in Scotland, for the benefit of the public, now has under its care some 60 properties, covering in all about 55,000 acres.

Planning in Northern Ireland

Town and Country Planning in Northern Ireland is governed by two enactments: the Planning and Housing Act (Northern Ireland) 1931, and the Planning (Interim Development) Act (Northern Ireland), 1944.

The Act of 1931 provides for the preparation by local authorities of planning schemes for development or re-development of their areas, with the general object of securing proper sanitary conditions, amenities and conveniences in connection with the laying out and use of land, and continues to be the main source from which power to prepare a planning scheme is derived. The Interim Development Act of 1944, however, constituted an important advance in planning legislation in Northern Ireland, since it enabled persons wishing to carry out development to do so without delay and, at the same time, ensured that development carried out before a planning scheme became operative should conform to the provisions likely to be included in a planning scheme for the area in which development was proposed.

The provisions of the Act brought under planning control all land in Northern Ireland and, in addition, required every local authority to prepare a planning scheme for its area. Interim control is exercised in accordance with the section of the Act which requires that, where application is made to an authority for permission to develop, the authority may grant the application conditionally or unconditionally or may refuse it altogether. In the event of a refusal or conditional approval, the applicant has a right to appeal to the Ministry of Health and Local Government for Northern Ireland (which is the Department primarily responsible for the administration of the planning Acts).

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[1] For further information on the Pilgrim Trust, see p. 387; and on the National Trust for England, Wales and Northern Ireland, and for Scotland, see p. 391.

Since the Act of 1944 was passed, all local planning authorities have made appreciable progress in the preparation of outline plans which indicate broadly the proposals for their areas. The outline plans not only provide a foundation for the preparation of more detailed plans at a later stage but also facilitate materially the work of interim development control. Many interim development applications have been decided by local planning authorities, and appeals lodged with the Ministry have been relatively few.

XII. RELIGION, SCIENCE, AND THE ARTS

RELIGION

Every person living in Britain possesses the rights of religious freedom as they are described in article 18 of the Universal Declaration of Human Rights; that is, he may change his religion at will and may manifest his religion in teaching, practice, worship and observance. Churches and religious societies of any faith may own property, conduct schools and propagate their faith in speech and writing. Freedom of conscience for minority religious groups and for non-religious groups has been achieved gradually and not without a struggle.

The Church of England and the Anglican Communion

The Church of England is the established Church of the Realm. It also claims to be the ancient Catholic Church of the land. At the Reformation it repudiated the supremacy of the Pope, but retained the historic episcopate, the Creeds, the Sacraments, and the appeal to Scripture, upon which its doctrine is based: therefore it claims to be both Catholic and Reformed. Its form of worship is embodied in the Book of Common Prayer.[1] Religious Orders were restored a hundred years ago. No single law defines the establishment of the Church of England in any such way as, for example, the Act of Union, 1707, defines the position of the Church of Scotland. The relation of Church and State in England is one of mutual obligations, of privileges accorded to the Church but balanced by certain duties. The Church of England is uniquely related to the Crown. The Sovereign, who must be a member of the Church of England, is called 'Defender of the Faith', a statutory title as protector of the Church, and promises on his or her Accession to uphold it. Prayers for the Sovereign are said in all the statutory services of the Church and the clergy take the oath of allegiance to the Crown.

The second link of Church and State is through the House of Lords, in which the two archbishops of Canterbury and York and 24 bishops have seats. This makes it possible for the mind of the Church to be freely expressed on any great moral issue raised in connection with the corporate conduct of the State, as well as on more narrowly ecclesiastical issues. Clergy of the Church of England are legally disqualified from sitting in the House of Commons. All bishops and deans are appointed by the Sovereign on the advice of the Prime Minister. The State upholds sentences passed in ecclesiastical courts (see p. 77). The highest court of appeal from an ecclesiastical court is the Judicial Committee of the Privy Council.

The State recognizes and protects church property. It makes no payments to the Church except for services rendered (e.g., chaplaincies to the armed forces and to prisons). 'Church property' belongs to parishes, dioceses or church societies. An investigation in 1951 showed that half the Church's income came from present giving and half from past giving, in the form of endowments. Endowments produced an income of £8¾ million a year and, of this total, property representing an annual income of £7 million was administered by the Church Commissioners, most of it for specific purposes from which it could not be transferred. The present figure for property administered by the Church Commissioners is £8¼ million a year, but there may be other factors affecting the aggregate which any new inquiry would have to take into account. The State is represented on this body and it reports annually to Parliament.

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[1] In March 1956 there will be commemorated the fourth centenary of the death at the stake of Archbishop Thomas Cranmer, whose name is closely associated with the Reformation. Besides encouraging the translation of the Bible into English and its circulation, Cranmer was personally responsible for much of the work of compiling the first two editions of the Book of Common Prayer.

The Established Church is not free to change its forms of worship, as laid down in the Book of Common Prayer, without the consent of Parliament. A proposed revision (1928) was accepted by the Church Assembly and the Convocations of Canterbury and York (see below), though with substantial minority opposition in some of the Houses, but was rejected by the House of Commons. A Church-appointed commission on Church-State relations reported in January 1952 and suggested certain changes in the relations between Church and State, but it was opposed to disestablishment; its report was unanimously accepted by the Church Assembly.

The Church is organized mainly by geographical areas (dioceses subdivided into parishes), and not by congregations. Everyone in England is born in a parish—about two-thirds being baptized by the Established Church—and the great majority tend to look to the Church for personal services (baptism of children, marriage and burial) and to expect it to play a part in local life. Only those who are baptized and confirmed may receive the Holy Communion but anyone who is baptized and not a member of another Church and who is over 18 years of age may apply for membership of the electoral roll of the parish where he or she habitually worships. The total number on the roll is just under 3 million, but this figure does not represent anything like the total Church membership.

Spiritual authority in the Church of England rests in the bishops. There are 43 dioceses, 29 in the province of Canterbury and 14 in that of York. The most ancient authoritative bodies in the Church in matters of doctrine and discipline are the Convocations of Canterbury and York. Each is presided over by its archbishop and consists of an upper house of bishops and a lower house of deans, archdeacons and elected clergy. The Houses of Convocation meet separately or together in May and October.

In 1919 by Act of Parliament the Church of England was given a National Assembly, commonly called the Church Assembly. This consists of three houses, Bishops, Clergy and Laity. The Laity (346 in number, including some 85 women) are elected on the basis of the electoral rolls to represent their dioceses. The Church Assembly may pass regulations and measures. Regulations affect matters which do not require parliamentary consent; thus, for example, the Diocesan Conferences were set up in 1935 by regulation. Measures, when passed through successive stages, are presented to the Ecclesiastical Committee which consists of 30 members, 15 of whom (from the House of Lords) are appointed by the Lord Chancellor, and 15 by the Speaker of the House of Commons. This committee reports on the expediency and possible legal results of the measure. On its advice the measure is either laid before Parliament and forwarded on resolution for the Royal Assent or, more rarely, is the subject of debate like any other Bill. The advantages to the State are the removal of the greater part of church business from its overcrowded debating time, and to the Church the initiation, discussion and framing of necessary matters by a fully representative church body and their speedy passing into operation.

The Assembly co-ordinates the vast scattered labours of the Church through Councils which report to it annually. The Training Colleges Council maintains 24 colleges for the training of teachers—an indication of the part played by the Church in the country's educational system. The Schools Council, in co-operation with the

National Society, deals with matters affecting the Church Schools. Other councils include the Central Advisory Council of Training for the Ministry. Selection of ordination candidates lies in the power of the bishops, but it has been agreed that candidates under 40 years of age shall attend one of the Council's 'selection centres' where a group of assessors spend several days with the men and discuss with them the future training which would best suit their needs. There are at present 24 theological colleges in England, one in Ireland, one in Scotland, and two in Wales.

At the time when the Church Assembly was set up the laity were associated in the government of the local churches through new elected bodies, the Parochial Church Councils.

There are Anglican Churches in Ireland, Scotland and Wales, but these are not established. The Church of Ireland has 14 dioceses or united dioceses, and some 400,000 members; the Episcopal Church in Scotland, seven dioceses and some 107,000 members; and the Church in Wales, six dioceses and some 200,000 members.

Outside the United Kingdom the Anglican Communion exists wherever Englishmen have gone as settlers, traders and missionaries. The Protestant Episcopal Church in the United States of America, the Church of India, Pakistan, Burma and Ceylon, and the Anglican Churches of South Africa, Canada, Australia, New Zealand, the West Indies, China, Japan, West Africa and Central Africa are all autonomous members of the Anglican Communion, while there are 20 oversea dioceses, mainly in Africa and Asia, which are under the jurisdiction of the Archbishop of Canterbury.

Since 1867, except for the war years, the Lambeth Conference has met every tenth year as an unofficial consultation between all Anglican bishops. It has no authority but enjoys great moral prestige, and its findings on doctrine, discipline, relations with other communions, and on the attitude of the Churches to political and social questions are widely read. In the interim years between the Lambeth Conferences it is proposed that an Anglican Congress should be held periodically. These Congresses, which include clergy not in episcopal orders and laymen as well as bishops, were inaugurated in 1954. The first session took place in the United States, at Minneapolis, and it is expected that each future Congress will be held in a different country.

The Church of Scotland

The established Church in Scotland is the Church of Scotland, which in government is Presbyterian. It has been described as 'the supreme example of a Church which is established and yet is free'. Whereas Episcopacy in church government is a hierarchy of persons, in Presbyterianism there is a hierarchy of courts. All ministers are of equal status, and the Church is governed locally by the Kirk Session, consisting of the minister and elected elders: above this is the court of the Presbytery, then that of the Synod, and finally the General Assembly, which meets annually and consists of elected ministers and elders presided over by an elected Moderator who serves for one year. The Sovereign is represented at the General Assembly by the Lord High Commissioner. The complete independence of the Church of Scotland to appoint its own officers and decide all matters of doctrine and discipline has been fought for by the Church with the utmost vigour down the years. The freedom of the Church is recognized by Parliament without being the subject of debate or modification. The thorough training of the ministry —lasting a minimum of six years—has given the Church a high reputation for scholarship and has in turn influenced the standard of education in the country. The communicant membership of the Church is over a million and a quarter.

The Free Churches

The largest of the Free Churches, formerly more generally known as the Nonconformist Churches, is the Methodist Church, the product of a union of Methodist Churches in 1932. It has three-quarters of a million adult full members. The supreme authority in the Church is the annual Conference and the system of government is in many ways presbyterian; the Leaders' Meeting corresponding to the Kirk Session, with Circuit Meetings and District Synods resembling Presbytery and Synod. It is not, however, the form of government that distinguishes Methodism from other Churches. Starting as a powerful evangelistic movement within the Church of England in the eighteenth century under the leadership of the brothers John and Charles Wesley, the Methodists had no idea of founding a Church until forbidden to preach by ecclesiastical authority. One of the Church's characteristics is its strong emphasis on lay leadership. There are nearly 24,000 trained lay preachers sharing the ministers' work and preaching in thousands of local churches.

The Congregational and Baptist Churches both regard the Church as a covenanted fellowship of believers, ministers being called to special service and set aside, trained and recognized by the Church. Local churches have formed county and national unions, whose secretariat and assemblies, however, have no compulsive authority over them, though much influence.

The Congregationalists in Britain, including Welsh Independents, number 379,000 and the Baptists 329,000 adult members. The importance they both attach to the autonomy of the local church meeting has been an influential factor in the development of British democratic methods. They both admit women to the ministry. Baptists differ from Congregationalists in practising the baptism of believers only; they do not baptize infants.

The Presbyterian (or Calvinistic Methodist) Church of Wales, which arose from the revivalist movement led by Howell Harris in 1735, embraces a large section of the Welsh-speaking population: its members number some 154,000.

Next in size among Presbyterian Churches is the Presbyterian Church in Ireland. The Presbyterian Church of England is organized in 14 Presbyteries and its highest court is the General Assembly. It admits women to the eldership.

The Society of Friends, or Quakers, founded in the middle of the seventeenth century by George Fox, have no ordained ministry, and do not observe the Sacraments. They have borne a consistent witness to pacifism, and their influence, especially in social reform and the relief of suffering, has been out of all proportion to their number (21,000). There are about 300 Unitarian and Free Christian Churches united by loyalty to the principle of freedom of thought in religion. Since 1904 they have admitted women to the ministry. The Salvation Army, founded in 1878 by William Booth, a Methodist, replaces ecclesiastical by military terminology. William Booth's mission to the poorest attracted first the scorn and then the respect of a large public. The movement is now world-wide and its social work is well supported.

The Christian Scientists have over 340 branch churches and societies in Britain.

The Roman Catholic Church

The Roman Catholic Church in the United Kingdom claims nearly four million adherents including children. The head of the Church in England is the Cardinal Archbishop of Westminster. There are 18 dioceses and nearly 2,000 parishes. The Church attaches great importance to educating children in its own schools. Schools, social work and many institutions are staffed by the great Roman Catholic Orders for men and women.

Jewry

The virtual destruction of whole Jewish communities on the Continent has left English Jewry as the largest group of Jews in Europe. These same events have caused religious organizations among Jews to gain in numbers and influence. The two main divisions are between Orthodox and Progressive Jews and each has within it several groups of congregations and synagogues. The Chief Rabbi is the head of the largest group within the Orthodox Jews.

Other Non-Christian Communities

Among other non-Christian communities in Britain, the Moslems are the most widely represented. The principal mosque is the Shah Jehan Mosque at Woking, and there are also mosques in London, Birmingham, Manchester, Cardiff and Glasgow.

A Buddhist temple was ceremonially opened in South Kensington, London, in May 1954.

Co-operation between the Churches

An outstanding feature of recent years has been the growth of co-operation between the Churches. The British Council of Churches was founded in 1942 and includes official representatives from almost all the Churches of the British Isles with the notable exception of the Roman Catholic Church. The Council facilitates common action between the Churches and seeks to further the cause of Christian unity. The Archbishop of Canterbury is President. In addition, many though not all of the Free Churches in England and Wales are members of the Free Church Federal Council (formed in 1940 by the amalgamation of the Federal Council of Evangelical Free Churches with the National Free Church Council) the aims of which are to promote unity and joint action between the Free Churches and to provide a channel through which the Free Churches can communicate and negotiate with central and local government organs as a united body.

The Church of England, the Church of Scotland and the Free Churches in England, Scotland, Ireland and Wales also participate in the World Council of Churches which was constituted at Amsterdam, Holland, in 1948, and held its Second Assembly at Evanston, Illinois, U.S.A., in August 1954. The Council links together 163 Churches in 48 nations for co-operation in action and the study of common problems.

Co-operation of other Churches with the Roman Catholic Church takes place on specific issues but there is no machinery of continued co-operation. The Council of Christians and Jews works for better understanding between members of the two religions, and deals with problems arising in the social field.

THE PROMOTION OF THE SCIENCES

While the promotion of the sciences in the United Kingdom is largely the concern of those learned societies and institutions devoted specifically to this end, only a small part of the research which is vital to science is carried out directly by them. Most of the 'pure' or 'fundamental' research is conducted in the universities, which also play an essential part in promoting the sciences by maintaining a steady supply of trained scientists. In practice it has become impossible to distinguish clearly between science and its extensive applications in everyday life, with the result that scientific research in the widest sense has become the concern also of industry and of various Departments of Government.

In recent years it has become an acknowledged responsibility of the Government not only to undertake research directly but also to keep under review the facilities for the training of scientists, to encourage fundamental research, to finance certain research projects, and to ensure that adequate research is directed to matters of national interest. As a result a system of collaboration has developed between the universities, industry, the learned societies and the Government which is of great value to the community and leaves the greatest possible measure of freedom to individual scientists.

Though scientific research is carried out mainly under three different kinds of administration—university, industry and Government—there is strong liaison and close co-operation between them, while the learned societies remain free to play a most important part in the discussion and publication of the results of research.

Important work is also undertaken by independent organizations—for example, in medical research, by the British Empire Cancer Campaign, the Imperial Cancer Research Fund, the Nuffield Foundation, the Lister Institute of Preventive Medicine, and by some large pharmaceutical firms. The Nuffield Foundation, which was established by Lord Nuffield in 1943, has a wider scope. Its aims are: the advancement of health and the prevention and relief of sickness; the advancement of social well-being; the care and comfort of the aged poor; the advancement of education; and such other charitable purposes as shall be declared by Lord Nuffield in his lifetime and by the trustees after his death. Prominent among the Foundation's many activities are the promotion of medical, scientific and social research and the development of medical services and of technical and commercial education. Its resources consist of a fund of £10 million provided by Lord Nuffield and of gifts and bequests from other persons.

THE LEARNED SOCIETIES

The learned societies have had a profound and lasting influence upon the development and organization of science in Britain; not only have they provided the background for the continuity of research from the seventeenth century onwards, but they have been a meeting ground where all scientists can forgather for the exchange of ideas, and a reliable source from which new ideas for the enrichment of knowledge can flow. Although today the bulk of research operations is conducted under auspices other than theirs, the learned societies have retained their traditional function of facilitating the spread of scientific knowledge and the application of new discoveries.

At present there are over 200 learned scientific societies in Britain with approximately 400 scientific publications. There are also numerous technical institutions and professional associations, many of which are playing a distinguished part in promoting their own branches of science and are interested in the education and professional well-being of their members. Prominent examples of these are the British Medical Association, the Institution of Civil Engineers, the Institution of Mechanical Engineers, the Institution of Electrical Engineers, the Institution of Metallurgists, the Royal Institute of Chemistry, the Institute of Physics, and the Institute of Biology.

The Royal Society, founded in 1660, occupies a unique place in the country's scientific affairs, although for two centuries scientists were in a minority among its members, whose interests lay mainly in history, art, archaeology or exploration. The Society has always been independent of State control but its advice on scientific matters has frequently been sought by the Government. Today its influence remains as strong as ever and its Fellows serve on most, if not all, of the Advisory Councils of Government Departments.

In addition the Society is responsible for the administration of many research funds and special funds derived from various sources and a number of Government grants. These funds and grants are used for the promotion of science through research, publications, congresses, the award of medals, lectures, and in many other ways. Its Fellowship consists of approximately 500 eminent scientists and 50 foreign members. Admission of the former is restricted to 25 a year, and of the latter to four a year; a few eminent non-scientists are also elected to Fellowships. The Society maintains a library (145,000 books of a purely scientific nature), issues a large number of publications, including the *Philosophical Transactions* and the *Proceedings* and convenes conferences which are attended by scientists from all countries.

The Royal Society of Arts (originally the Society for the Encouragement of Arts, Manufactures and Commerce) was founded in 1754, and as it was the first society of its kind its work was at first very wide, covering scientific, technical, industrial and commercial matters on a world-wide scale. As institutions devoted to the specialized branches of science and industry came to be established, the Society gradually abandoned some of its earlier fields of work, but it is still a recognized forum for the discussion of technical and other subjects.

The Royal Institution was founded in 1799 as a public body for facilitating the introduction of useful mechanical inventions and improvements, and for teaching the application of science to everyday life. Later it undertook the 'promotion of chemical science by experiments and lectures for improving arts and manufactures', and 'the diffusion and extension of useful knowledge'. Its character, however, was largely determined by the work of Sir Humphry Davy and Michael Faraday who established a tradition of research. Today the Institution has extensive research laboratories, and lectures are given on the recent developments in science and other branches of knowledge. Its library of 70,000 books includes many early scientific works and manuscripts.

The British Association for the Advancement of Science was founded in 1831 to promote general interest in science and its applications. At the present day one of its chief activities is the Annual Meeting. Its 13 sections cover the whole range of pure and applied science other than medical science, and there is a division for studying the social and international relations of science. Collaboration with other scientific organizations has always been an important function of the British Association, and it has an organized relationship with over 150 scientific bodies and learned societies. It has also played an important part in the development of science by taking or recommending action to remove obstacles to the discovery and application of scientific knowledge.

THE UNIVERSITIES

The universities carry the main responsibility for the pursuit of fundamental research and for the training of scientists. During recent years there has also been a considerable expansion of technological training and research facilities within the universities, all of which now offer work in one or more technological subjects (e.g., applied science, engineering, metallurgy and industrial fermentation). Early in 1953 it was decided that the Imperial College of Science and Technology (part of London University) should undergo a major expansion with the aim of increasing the number of scientists and technologists under full-time training from the existing figure of 1,650 to 3,000 by the end of 1962.

Major developments in technological education, with the aid of Government grants, are also planned for the universities and technical colleges of Glasgow, Manchester, Birmingham and Leeds. There are also to be developments on a fairly large scale at Cambridge and Sheffield and specialized developments at universities in other industrial centres.

The estimated number of graduate scientists in the working population has risen from under 50,000 in 1939 to nearly 80,000 in 1955 and there has been an even greater increase, from a little over 50,000 in 1939 to over 130,000 in 1955, in the number of technologists. This increase will continue with the expansion of facilities at the universities and training colleges, but demands for trained scientists will continue for some time to exceed the supply.

The twenty-one universities and the two university colleges in the United Kingdom (see p. 344) all have laboratories or research departments. Over two-thirds of the income of the universities comes from Government sources. There is no direct departmental control and the method of administering the grant—through the University Grants Committee (see p. 344)—ensures academic freedom. Additional funds for the prosecution of research are also secured in some instances by the private endowment of research fellowships generally awarded by the universities to selected persons, or by grants from outside bodies tenable at the universities. Examples are the Leverhulme Fellowships, the Imperial Chemical Industries Fellowships and the research grants of the Nuffield Foundation.

The universities are also assisted by grants from industry and commerce and from the Government Research Councils. An example of the close co-operation that has been achieved between several branches of industry and the research departments of universities is the Glass Delegation of the University of Sheffield. This is responsible for the general direction of the work of the Department of Glass Technology and is composed of members appointed by the Council of the University and representatives of firms and companies who subscribe funds for the furtherance of training and research. By these means the universities are closely associated with the Government research departments and with the most important industries in the country.

RESEARCH IN INDUSTRY

Industrial research in Great Britain is conducted by individual industrial firms and organizations independently of Government aid, by co-operative Research Associations which make use of facilities afforded by the Government, by sponsored research institutes, and by universities and a number of the major technical colleges.

The main nationalized industries have their own research establishments and also give financial support to organizations concerned with research into matters of interest to them. An account of the provision for research by the National Coal Board, the Central Electricity Authority and the Gas Council is given on pp. 171–2, 179, and 182 respectively.

Industrial Organizations

The Industrial Research Secretariat of the Federation of British Industries has conducted a comprehensive survey (1945–46) of the research work done in private organizations (*Scientific and Technical Research in British Industry*, FBI, July 1947). This showed that about 1,000 British firms were conducting research: 420 spent at least £1,000 a year on research, and the total sum spent by industry on research and development was approximately £30 million. The number of workers engaged in industrial research was estimated at 45,000; about 10,000 were qualified staff with a university degree or equivalent, and nearly one-half of these were chemists. About 100 firms had first-class research facilities and extensive research programmes which embraced both pure and applied research. The survey showed that about 300 firms were in touch with universities and technical colleges on research questions, and 60 firms had a very close connection, through endowing scholarships and research fellowships, with appropriate universities. It also revealed that more than 300 of the firms surveyed were members of a Research Association and that more than half of these were members of more than one Research Association.

A later report (*Research and Development in British Industry*, FBI, July 1952) suggested that, in the year 1950–51, the total expenditure on research and development had increased by between 50 and 100 per cent since 1945–46, and the number of qualified staff by about 50 per cent. The other figures remained substantially the same.

Research Associations

One of the first acts of the Advisory Council for Scientific and Industrial Research (see pp. 373 and 375), when it was established in 1915, was to recommend a scheme by which the Government associated itself with groups of firms having similar interests to form Research Associations. Today there are 41 such Research Associations,[1] with a combined income of £4 million of which about one-third is contributed by the Government through the Industrial Grants Committee of the Department of Scientific and Industrial Research (see pp. 375–6). The amounts of the Government grants are related to the contributions made by the industries concerned.

The Research Associations are autonomous bodies, governed by their own councils, the large majority of whose members are representatives of industry. The councils are advised by research committees in the preparation of research programmes.

Sponsored Research Institutes. A number of sponsored research institutes have been established to meet the needs of private firms which are unable to maintain fully equipped research laboratories. They are establishments where research can be carried out confidentially so that the results and any patents which may arise from it are retained as the property of the sponsoring body. The principal institutes are the *Fulmer Research Institute* and the *Sondes Place Research Institute.*

National Research Development Corporation. The National Research Development Corporation (NRDC) was set up by the Board of Trade in 1948. Its function is primarily to develop in the public interest, inventions resulting from research carried out by Government Departments and other public bodies. Under the Development of Inventions Act, 1954, however, NRDC is now allowed, under certain conditions, to initiate research as well as to develop inventions resulting from research. It is an independent body, subject only to general direction by the Board of Trade, with powers to borrow from Government funds up to £5 million in the first ten years of its life. Projects selected for development include electronic digital computers, Merton diffraction gratings, a lightweight power unit, a potato harvester, printed electrical circuits, and the manufacture of cortisone from hecogenin obtained from the sisal plant.

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[1] For a complete list of these Research Associations see the Annual Reports of the Department of Scientific and Industrial Research.

GOVERNMENT RESEARCH ORGANIZATION

Early Developments

Although the active participation by the Government in scientific effort is, for the most part, a twentieth-century development, its association with science dates from a much earlier time. Interest in navigation led Charles II in 1675 to establish Britain's first State-supported institution—the Royal Observatory at Greenwich[1]—for the purpose of correcting the tables of the positions of the moon and fixed stars 'for the use of his seamen'. The Geological Survey of Great Britain—the first national institution of its kind in the world—originated in 1835. In 1842 the Department of the Government Chemist was founded, and in 1854 'for the safeguarding of seamen' the Meteorological Office was established by the Board of Trade. All these Government Departments were using scientific knowledge but there was little organized effort towards the application of the discoveries made in pure science. Government scientific organization, like many British institutions, evolved gradually in response to the changing social and economic circumstances of the times.

The need for research in physics and engineering, and particularly into methods of precise measurement, led to the establishment of the National Physical Laboratory under the control of the Royal Society in 1900, with a modest grant from the Treasury towards equipment and a yearly grant towards upkeep.

From 1909, however, the Government assumed a wider responsibility for promoting and encouraging scientific research and since that time its assistance has been adapted to meet the rapidly changing conditions in industry and education.

The Development Commission, appointed in 1909 by the Government, recommended that financial aid should be made available from the Development Fund to 'aid and develop agriculture and rural industries by promoting scientific research'. In 1911 the Development Fund was used to establish a comprehensive scheme which led to the formation of most of the present-day agricultural research institutes.

In 1913 a Medical Research Committee (the forerunner of the Medical Research Council) was appointed to administer the research funds provided under the National Health Insurance Act of 1911.

Up to the outbreak of the first world war, the Government's contribution to scientific research was made directly through such organizations as these, and indirectly through grants administered on its behalf by such bodies as the Royal Society and the Imperial College of Science and Technology.

The recognition of the importance of scientific research and of the application of scientific knowledge to commerce and industry led to the establishment of the Department of Scientific and Industrial Research (DSIR) as a separate Government Department in 1916. The Advisory Council for Scientific and Industrial Research, to which all proposals for new work are referred by the DSIR in the first instance, was given responsibility for (1) instituting specific researches; (2) establishing or developing special institutions or departments of existing institutions for the specific study of problems affecting particular industries or trades; (3) the establishment and award of research studentships and fellowships.

In 1918 financial responsibility for the National Physical Laboratory was transferred from the Royal Society to the DSIR, although the Royal Society continued to advise on the scientific direction of the Laboratory.

The Forestry Commissioners were appointed in 1919 with powers to undertake and aid research for the promotion of forestry.

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[1] Now in process of removal to Herstmonceux, Sussex. The move started in 1948 and is expected to be completed in 1956.

In 1920 the Government established the Medical Research Council with a grant-in-aid provided directly by Parliament.

The third of the Councils created by the Government for the promotion of research, the Agricultural Research Council, was established in 1931. In addition to its duties as adviser to the Development Commissioners and the Agricultural Departments (for England and Wales and for Scotland), the Council was given funds of its own from which grants could be made for special research projects.

During the second world war a Scientific Advisory Committee to the War Cabinet was created, with the object of co-ordinating defence research and civil research.

The Lord President of the Council, as the Minister responsible for the three Research Councils, and as President of the Scientific Advisory Committee, came to be regarded as the member of the Cabinet responsible for the direction of Government scientific organization.

Post-war Developments

At the end of the second world war, the Government established an Advisory Council on Scientific Policy 'to advise the Lord President of the Council in the exercise of his responsibility for the formulation and execution of Government scientific policy'.

The Advisory Council, appointed by the Lord President in January 1947, has 15 members—12 eminent scientists from the universities, industry and Government service, and 3 senior Government administrators.

In the same year the Defence Research Policy Committee was established 'to advise the Minister of Defence and Chiefs of Staff on matters connected with the formulation of scientific policy in the defence field'.

These two bodies replaced the Scientific Advisory Committee to the War Cabinet.

In order to give adequate attention to each of the subjects within its wide range of interest, the Advisory Council has established the following standing committees:

the Committee on Scientific Manpower;
the Scientific Library and Technical Information Committee;
the Committee on Overseas Scientific Relations.

Government Machinery for Civil Scientific Research

The principles underlying Government scientific organization are briefly as follows:

1. The Lord President of the Council is responsible for the formulation and execution of Government scientific policy and is advised by the Advisory Council on Scientific Policy on general questions which relate to the whole field of civil science.
2. The Lord President is the Minister responsible to Parliament for the Department of Scientific and Industrial Research, the Medical Research Council, the Agricultural Research Council, and the Nature Conservancy, and is chairman of the three Privy Council Committees to which they report—the committees for Scientific and Industrial Research, Medical Research, and Agricultural Research and Nature Conservation.
3. The Lord President is also the Minister responsible to Parliament for general oversight of the development of atomic energy, and appoints the members of the Atomic Energy Authority (see p. 379).
4. Other Ministers are responsible for the scientific establishments within their own Departments.

5. The advice of the Research Councils is at the disposal of the Executive Departments and there is close liaison between them, but the Research Councils are not subject to departmental control.

Department of Scientific and Industrial Research

The DSIR[1] is responsible to the Committee of the Privy Council for Scientific and Industrial Research of which the Lord President is chairman. This Committee is advised by the Advisory Council for Scientific and Industrial Research (see pp. 372 and 373), which includes in its membership eminent scientists and leading industrialists, two members closely connected with organized labour and assessors appointed by Government Departments.

With the exception of medicine, agriculture and atomic energy, the DSIR includes in its scope all branches of natural science and their application to industrial processes. Its activities fall into three main groups:

1. Scientific research in the national interest and to meet the needs of Government Departments.
2. The encouragement of research and the application of scientific knowledge in industry.
3. The encouragement of fundamental research at universities and elsewhere, and the maintenance of an adequate supply of trained research workers for laboratories of all kinds.

The first of these functions is discharged through 13 national research organizations[2] under the Department's own control and direction and financed from its own Vote, and one, the Fire Research Organization, which is maintained by the Department and the Fire Offices Committee jointly.

The National Physical Laboratory at Teddington, Middlesex, is the largest of the DSIR establishments and conducts research in a variety of branches of physics. These include aerodynamics; electricity; electronics; X-ray, ultra-violet, visible and infra-red radiations; mathematical computation; metallurgy; heat and temperature measurement; sound and noise; and ship design. The Laboratory also maintains the British primary standards of length, mass, temperature, illumination, electrical and other physical units. The facilities for accurate measurement are also employed for precision work and determination of the physical properties of materials. The Laboratory carries out high-grade testing of a wide range of apparatus and materials.

The second of the DSIR's functions is discharged mainly through the autonomous Research Associations (see p. 372); while its third function is carried out by means of grants to individual workers or institutions for special investigations.

The close contacts maintained between the DSIR and other Government Departments, Research Associations and other bodies help to ensure that the scientific resources of the Department are applied to the solution of problems which are of most importance to the national economy and are used to make the maximum contribution to improving industrial efficiency.

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[1] See also p. 52.

[2] National Physical Laboratory
Building Research Station
Chemical Research Laboratory
Food Investigation Organization including:
  Low Temperature Research Station
  Torry Research Station and Humber Laboratory
  Ditton Laboratory
  Smithfield and Covent Garden Laboratories
Forest Products Research Laboratory
Fuel Research Station
Geological Survey and Museum of Practical Geology
Hydraulics Research Station
Mechanical Engineering Research Laboratory
Pest Infestation Laboratory
Radio Research Station
Road Research Laboratory
Water Pollution Research Laboratory.

Medical Research Council

The Medical Research Council (MRC), the successor of the Medical Research Committee, was incorporated under its present title by Royal Charter in 1920.

The MRC is responsible to the Committee of the Privy Council for Medical Research of which the Lord President is chairman and the Minister of Health and the Secretaries of State for the Home Department, Scotland, Commonwealth Relations, and the Colonies are members.

The MRC has 12 members. Nine of these members are appointed for their scientific qualifications; and of the other three, one must be a member of the House of Lords and one a member of the House of Commons. The scientific members are appointed by the Privy Council Committee after consultation with the Medical Research Council and the President of the Royal Society.

The Council's chief function is to undertake or promote scientific investigations to obtain new knowledge likely to be of value in the field of curative and preventive medicine. In promoting investigations on particular subjects it has the advice of a large number of expert committees which it appoints for the purpose. In general, the arrangements for the support of research fall under three headings:

1. Investigations by members of the Council's scientific staff, mostly working in the Council's own research establishments.
2. Temporary research grants to independent investigators in universities and elsewhere.
3. Research scholarships and fellowships for work both at home and abroad.

The Council's principal research establishment is the National Institute for Medical Research, at Mill Hill, London. In addition, the Council maintains some 50 research units, departments or groups attached to university departments or hospitals; some of these are concerned with clinical research and others with laboratory studies.[1]

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[1] Department of Clinical Research, University College Hospital Medical School, London
Clinical Research Unit, Guy's Hospital, London
Neurological Research Unit, National Hospital, Queen Square, London
Department of Experimental Medicine, Cambridge University
Clinical Endocrinology Research Unit, Edinburgh Royal Infirmary
Clinical Chemotherapeutic Research Unit, Glasgow University
Group for Research on Body Temperature Regulation, St. Mary's Hospital, London
Obstetric Medicine Research Unit, University of Aberdeen
Tuberculosis Research Unit, Medical Research Council Laboratories, Hampstead, London
Blood Transfusion Research Unit, Postgraduate Medical School of London
Blood Group Research Unit, Lister Institute, London
Blood Group Reference Laboratory, Lister Institute, London
Radiobiological Research Unit, Atomic Energy Research Establishment, Harwell
Radiotherapeutic Research Unit, Hammersmith Hospital, London
Experimental Radiopathology Research Unit, Hammersmith Hospital, London
Betatron Research Group, Christie Hospital and Holt Radium Institute, Manchester
Radiological Protection Service, Dowas Nursery Hospital, Sutton, Surrey
Otological Research Unit, National Hospital, Queen Square, London
Wernher Research Unit on Deafness, King's College Hospital Medical School, London
Ophthalmological Research Unit, Institute of Ophthalmology, Judd Street, London

Footnote continued on next page.

The Public Health Laboratory Service is administered by the MRC on behalf of the Ministry of Health. It consists of a chain of public health laboratories throughout England and Wales, the largest establishment of the Service being the Central Public Health Laboratory, Colindale (London). This laboratory includes the National Collection of Type Cultures, the Standards Laboratory for Serological Reagents, and reference laboratories specializing in the identification of particular groups of infective micro-organisms, as well as other specialized laboratories such as the Air Hygiene and Food Hygiene Laboratories.

Agricultural Research Council

The Agricultural Research Council (ARC) was established by Royal Charter in 1931. It is responsible to the Committee of the Privy Council for Agricultural Research and Nature Conservation, of which the Lord President of the Council is chairman, and the Minister of Agriculture, Fisheries and Food is vice-chairman. The other members of the Committee are the Secretaries of State for the Home Department, Scotland, and the Colonies, and the Ministers of Education and Housing and Local Government.

The ARC consists of 15 members, five appointed for their general experience of, and interest in, agriculture, and the rest for their scientific qualifications. The

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Continued from previous page.

Group for Research in the Physiology of Vision, Institute of Ophthalmology, Judd Street, London
Group for Research in Occupational Optics, Institute of Ophthalmology, Judd Street, London
Wernher Group for Research in Ophthalmological Genetics, Royal College of Surgeons, London
Unit for Research on the Experimental Pathology of the Skin, The Medical School, University of Birmingham
Nutrition Building, National Institute for Medical Research, Mill Hill, London
Human Nutrition Research Unit, Medical Research Council Laboratories, Hampstead, London, and Field Research Station, Fajara, Gambia, W. Africa
Dunn Nutritional Laboratory, Cambridge University
Unit for Research on the Molecular Structure of Biological Systems, Cavendish Laboratory, Cambridge University
Biophysics Research Unit, King's College, London
Cell Metabolism Research Unit, Sheffield University
Chemical Microbiology Research Unit, School of Biochemistry, Cambridge University
Group for Research in Chemotherapy, Molteno Institute, Cambridge University
Department for Research in Industrial Medicine, London Hospital
Industrial Injuries and Burns Research Unit, Birmingham Accident Hospital
Pneumoconiosis Research Unit, Llandough Hospital, Penarth, Glamorgan
Toxicology Research Unit, Serum Research Institute, Carshalton, Surrey
Environmental Hygiene Research Unit, London School of Hygiene and Tropical Medicine, London, and MRC Laboratories, Holly Hill, Hampstead, London
Climate and Working Efficiency Research Unit, Oxford University
Medical Research Council Laboratories, Gambia
Group for Research on Infantile Malnutrition, Mulago Hospital, Kampala, Uganda
Group for Research on Bilharzia Disease, Winches Farm, St. Albans
Applied Psychology Research Unit, Cambridge University
Industrial Psychology Research Group, University College, London
Unit for Research in Occupational Adaptation, Maudsley Hospital, London
Social Medicine Research Unit, Central Middlesex Hospital, London
Statistical Research Unit, London School of Hygiene and Tropical Medicine
Serum Research Institute, Carshalton, Surrey
Antibiotics Research Station, Clevedon, Somerset
Laboratory Animals Bureau, Medical Research Council Laboratories, Hampstead, London.

Privy Council Committee, after consulting the ARC itself and (as regards the scientific members) the President of the Royal Society, makes the appointments.

The Council plans and co-ordinates work over the entire field of agricultural research and is assisted in this task by standing committees and a number of technical committees and conferences.

The Council advises both the Ministry of Agriculture, Fisheries and Food and the Department of Agriculture for Scotland on the programmes, estimates and staffing of the Agricultural Research Institutes,[1] which with certain exceptions have their own governing bodies but are almost wholly financed from State funds. The Council has 17 research stations and units under its direct control in Great Britain.[2] In May 1955 the Government announced that it had decided to transfer to the Council (from the Ministry of Agriculture, Fisheries and Food) responsibility for making grants to the independent research institutes in England and Wales, but not in Scotland, where this will remain the responsibility of the Department of Agriculture for Scotland. The transfer is likely to be completed by 1st April 1956.

In addition the ARC devotes part of its funds to encouraging research by means of special research grants which are allocated to one or other of the research institutes, to university departments or to advisory centres. It also awards scholarships and training grants.

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[1] Rothamsted Experimental Station, Harpenden, Herts
East Malling Research Station, near Maidstone, Kent
Grassland Research Station, Hurley, Berks
Agricultural and Horticultural Research Station, Long Ashton, Bristol
National Vegetable Research Station, Wellesbourne, Warwickshire
Welsh Plant Breeding Station, Aberystwyth
John Innes Horticultural Institution, Bayfordbury, Herts
Glasshouse Crops Research Institute, Rustington, Sussex
Research Institute of Plant Physiology, Imperial College of Science and Technology, London
Plant Breeding Institute, Cambridge
Hop Research Centre, Wye College, Kent
National Institute for Research in Dairying, Reading
Research Institute (Animal Virus Diseases), Pirbright, Surrey
Poultry Genetics Station, Cambridge
National Institute of Agricultural Engineering, Silsoe, Bedfordshire
Macaulay Institute for Soil Research, Aberdeen
Scottish Horticultural Research Institute, Mylnefield, Invergowrie, by Dundee
Scottish Plant Breeding Station, Pentlandfield, Midlothian
Rowett Research Institute, Aberdeen
Hannah Dairy Research Institute, Ayr
Animal Diseases Research Association, Moredun Institute, Edinburgh
National Institute of Agricultural Engineering Scottish Station, Howden, Midlothian
Hill Farming Research Organization, Edinburgh.

[2] Field Station, Compton, near Newbury, Berks
Animal Breeding Research Organization, Edinburgh
Institute of Animal Physiology, Babraham, Cambridgeshire
Poultry Research Centre, Edinburgh
Unit of Biometrical Genetics, University of Birmingham
Unit of Embryology, University College of North Wales, Bangor
Unit of Experimental Agronomy, University of Oxford
Unit of Insect Physiology, University of Cambridge
Unit of Microbiology, University of Sheffield
Unit of Plant Cell Physiology, University of Oxford
Plant Growth Substance and Systemic Fungicide Unit, Wye College, Kent
Unit of Plant Nutrition (Micro-Nutrients), Agricultural and Horticultural Research Station, Long Ashton, Bristol
Potato Storage Investigation, University of Nottingham, School of Agriculture
Unit of Reproductive Physiology and Biochemistry, University of Cambridge
Unit of Soil Physics, University of Cambridge
Unit of Statistics, University of Aberdeen
Virus Research Unit, University of Cambridge.

Nature Conservancy

The Nature Conservancy was established by Royal Charter in 1949 and is responsible to the Committee of the Privy Council for Agricultural Research and Nature Conservation. Its functions, as summarized in the charter, are 'to provide scientific advice on the conservation and control of the natural flora and fauna of Great Britain; to establish, maintain and manage nature reserves in Great Britain [see p. 361], including the maintenance of physical features of scientific interest; and to organize and develop the research and scientific service related thereto'.

Atomic Energy Authority

Before 1946 the Department of Scientific and Industrial Research was responsible for atomic energy research and development.

From 1946 to 1953 this responsibility rested with the Minister of Supply. By April 1953, however, the Government had decided in principle to transfer responsibility for atomic energy from the Minister of Supply to a non-departmental organization, in view both of the growing importance of the industrial applications of atomic energy and the need for an organization for atomic energy more akin to that of a large industrial undertaking. It was subsequently announced that the Minister to be generally responsible for the control and development of atomic energy in the United Kingdom would be the Lord President of the Council.

As an interim measure the Department of Atomic Energy was set up under the Lord President; this Department took over responsibility for the operation of the atomic energy project from 1st January 1954. Subsequently Parliament passed the Atomic Energy Authority Act, 1954, and the United Kingdom Atomic Energy Authority, set up under that Act, took over responsibility for the project from the Department of Atomic Energy on 1st August 1954. The Lord President is still responsible to Parliament for atomic energy policy generally and also, subject to the consent of the Treasury, for providing funds for the Authority out of money provided by Parliament. In particular he has the duty of securing that, in the Authority's operations, the proper degrees of importance are attached to the various applications of atomic energy. He is assisted, in the exercise of these responsibilities, by the Atomic Energy Office, which also provides any necessary liaison between the Authority and other Government Departments. The Minister of Supply continues to be responsible for providing atomic weapons to the Services and places contracts with the Authority for the production of nuclear components of such weapons and research related to them; the Authority is free to conduct experimental work which may lead to improved types of warheads for such weapons.

The Authority, whose members are appointed by the Lord President, consists of not fewer than eight and not more than 11 members, including the chairman.

The Authority, like other statutory corporations, is free from day-to-day Government control (subject to the power given to the Lord President to issue directions to the Authority on any matter where he considers over-riding national interests require his intervention), but differs from them in that the bulk of its revenue is derived from money voted by Parliament and in that its accounts are examined and certified by the Comptroller and Auditor General (see p. 279).

The Authority's establishments, and their respective functions, are as follows:

The Atomic Energy Research Establishment at Harwell, in Berkshire, is responsible for fundamental research into nuclear physics and atomic energy, and provides basic scientific information to the other establishments. It houses the United Kingdom's first two experimental piles, *Gleep* and *Bepo*, a zero energy experimental fast breeder reactor, *Zephyr*, which went into operation on 5th February 1954, and a heavy water reactor known as *Dimple*, which started working on 1st August 1954.

It was announced on 8th August 1955 that the amount of fresh plutonium produced in *Zephyr* by the breeding process had been found to be about double the amount consumed in the core; and that another experimental fast breeder reactor, *Zeus*, a very low-powered model of the Dounreay fast breeder reactor (see below) had been built at Harwell and would be in operation before the end of 1955. Two more heavy water reactors, the *E443* (*Dido*) and the *RE773* (*Pluto*), are under construction. Harwell is also responsible for about half the production of isotopes in the United Kingdom (see p. 198), the number of consignments dispatched from the Establishment in 1954 being 9,274, of which 3,138 were exported.

An Isotope School was established at Harwell in April 1951 and a Reactor School in September 1954. The first gives training in the handling and measuring of radioisotopes, and the second provides courses in reactor physics and reactor engineering as well as in nuclear physics and metallurgy. One-third of the students at the Isotope School and nearly one-half of those at the Reactor School come from overseas.

The Radiochemical Centre at Amersham, in Buckinghamshire, is a dependency of the Harwell Establishment. It is concerned with preparing radioactive substances such as radium, radon and radioactive isotopes produced in the atomic piles. Over 115 different labelled compounds have been prepared by chemists at Amersham since 1948 and 100 of these can now be supplied from stock. In all 10,257 consignments of isotopes were dispatched from the Centre in 1954, of which 4,114 were exported (see also p. 198). These are used for medical, scientific and industrial purposes.

The production of fissile material is directed from the headquarters of the Industrial Group at Risley, near Warrington, Lancashire. Production factories are situated at Springfields, near Preston, Lancashire, where pure uranium is produced from uranium concentrates; at Windscale in Cumberland, where plutonium is produced from uranium by means of atomic piles; and at Capenhurst in Cheshire, where there is a gaseous diffusion plant for separating the uranium isotope U235 from the more abundant isotope U238, thus providing a fissile material which can be used as an alternative to plutonium. The Industrial Group is also responsible for the design, construction and operation of the experimental atomic power plant that is being built at Calder Hall, adjoining the Windscale factory, and for the experimental breeder reactor being built at Dounreay, in Caithness, Scotland, where a further heavy water reactor is to be built.

Research work on atomic weapons is carried on at the Establishment at Aldermaston, in Berkshire, and its out-stations at Woolwich, Fort Halstead and Foulness.

The work of these establishments is co-ordinated at the headquarters of the Atomic Energy Authority in London.

When the Authority first took over the atomic energy project, orders for all buildings and maintenance work at different establishments were the responsibility of the Ministry of Works. It was decided that such work should be taken over by the Authority as soon as possible, and an immediate start was made by setting up, in September 1954, a Works Contract Branch at Risley, Lancashire, to deal with all building projects for new work or maintenance in the Industrial Group. Since then arrangements have also been made at Harwell, and at Aldermaston, to take over from the Ministry of Works all maintenance work at these establishments with effect from 1st April 1955; new works will be taken over at a later date.

The Atomic Energy Authority will provide expert advice on the nuclear elements in the power stations to be built for the Central Electricity Authority, as well as being responsible for the six additional reactors which are to be constructed for the Authority itself (see p. 177).

Other Government-sponsored Scientific Research

All Departments rely on one or other of the Government Research Councils for scientific advice. While some use these bodies as their main source of scientific information, a few have set up supplementary research organizations of their own.

Defence Research with Civil Applications

Research and development undertaken by the Admiralty is almost exclusively directed to meeting the requirements of the Royal Navy, but a substantial amount of this work has important civil applications. The research activities of the Royal Observatory and the National Institute of Oceanography, which are mainly in the civil field, are administered by the Admiralty.

The Ministry of Supply carries out research needed to meet the technical requirements of defence and is also responsible for research in some civilian fields, e.g., the Royal Aircraft Establishment and the National Gas Turbine Establishment at Farnborough. Some fundamental research is also carried out for the Ministry by universities and industrial organizations.

The Air Ministry is responsible for the Meteorological Office (see p. 43), where the research carried out has many applications on the civil side.

Agriculture

Apart from research at the grant-aided Institutes and the centres financed by the Agricultural Research Council, the Ministry of Agriculture, Fisheries and Food conducts research in its own Veterinary Laboratory at Weybridge, Surrey, and also at its Plant Pathology Laboratory at Harpenden, Herts; and its Infestation Division at Tolworth, Surrey, conducts research into problems affecting the destruction and control of insect pests of stored food, rodent pests and other animal and bird pests. The Department of Agriculture for Scotland maintains a plant pathology laboratory in Edinburgh (carrying out research in entomology and helminthology). In Northern Ireland research in all the major agricultural sciences is carried out directly by the Ministry of Agriculture.

Fisheries

The authorities concerned with fisheries research are: the Ministry of Agriculture, Fisheries and Food, which maintains a laboratory for marine research, four research vessels, and two experimental stations for shellfish investigation; the Scottish Home Department, which maintains a research laboratory at Aberdeen and four research ships; and the Development Commissioners.

The Development Commissioners, through their Advisory Committee on Fishery Research, co-ordinate all fishery research, not only that which is aided by the Development Fund (see p. 373). From the latter a number of independent institutions receive grants for marine and freshwater research.[1]

Food

The Ministry of Agriculture, Fisheries and Food, under the direction of its Chief Scientific Adviser (Food), conducts research in nutrition and food technology. It has experimental laboratories and kitchens in London and has an experimental factory at Aberdeen to facilitate the commercial development and application of the results of research.

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[1] The Marine Biological Association, Plymouth
University of Liverpool (Port Erin Biological Station)
Scottish Marine Biological Association, Millport, Isle of Cumbrae
Freshwater Biological Association, Ambleside, Westmorland
Dove Marine Laboratory (King's College, Newcastle upon Tyne).

Forestry

The Forestry Commission (see p. 166) is responsible for forestry in Great Britain and undertakes experimental work relating to silvicultural and allied problems. By means of grants, it also aids forest research work undertaken by various universities and other institutions, including the Imperial Forestry Institute, Oxford.

Fuel and Power

The Ministry of Fuel and Power has responsibility for research on safety in mines, and plays a direct part in research such as that into the development of coal-consuming gas turbines, underground gasification and total gasification. There is close collaboration between the Ministry, the Scientific Departments of the National Coal Board, the Central Electricity Authority, the Gas Council, and the Fuel Research Station of the Department of Scientific and Industrial Research, all of which are responsible for research in their own fields.

Transport

The Ministry of Transport and Civil Aviation is concerned with two main fields of scientific research: research on radio aids to marine navigation, conducted by the Admiralty Signal and Radar Establishment, the cost being borne by the Ministry of Transport and Civil Aviation; and road research, in co-operation with the DSIR, including soil mechanics, materials, construction and road safety.

Land Use and Planning

The Ministry of Housing and Local Government is responsible for policy relating to the use and development of land in England and Wales. Through its Technical Services Directorate, the Ministry deals with technical planning and geographical, geological, economic and sociological matters. Similar arrangements are made for Scotland by the Department of Health for Scotland. The Ministry of Health and Local Government is responsible for the general administration of the planning legislation in Northern Ireland.

Building

The Ministry of Works is responsible for reviewing the whole field of research and technical development of the building industry and for ensuring that the results of research are made available to the industry. Research is carried out by several establishments of the Department of Scientific and Industrial Research, in particular the Building Research Station.

Radio and Telecommunications

The Post Office undertakes scientific research on a wide range of subjects relating to telephone, telegraph and radio systems which is carried out by the Research Branch of the Engineering Department. It also undertakes the experimental development of radio transmitters and receivers for Post Office services and other Government Departments. The Post Office keeps in close touch with the British Broadcasting Corporation (BBC) and the Independent Television Authority (ITA) in connection with the development of broadcasting techniques.

Analytical Chemistry

The Department of the Government Chemist is responsible for providing analytical services to all Government Departments that may require them. It carries out special investigations, e.g., in connection with nutritional and physiological surveys, and conducts fundamental research in infra-red spectrography, chromatography and X-ray study of crystals.

Medicine and Health

In addition to the work carried on under the aegis of the Medical Research Council, the Ministry of Health may conduct and promote research into the cause, prevention and treatment of illness or mental defectiveness.

The Department of Health for Scotland has similar responsibilities, and an Advisory Committee on Medical Research in Scotland works with the Medical Research Council.

In Northern Ireland, the Hospitals Authority (a statutory body set up by the Minister of Health and Local Government) has permissive powers to conduct or assist medical research. In addition, it has a statutory duty to provide adequate bacteriological and pathological services.

The General Register Office carries out research in four main fields: (1) analysis and interpretation of statistics of causes of death; (2) statistical inquiry into the treatment of cancer and its results; (3) morbidity as revealed in hospital statistics; and (4) mental health.

Colonial Research

The bulk of the research work relating to Colonial development is done locally, but much of it requires close collaboration with research institutes and laboratories in Britain. It is the function of the Colonial Research Council to co-ordinate the work of the specialist committees and to advise on general questions relating to policy. The specialist bodies concerned deal with research into such subjects as agriculture, animal health, forestry, medicine, social science and colonial products.

Anti-Locust Research

In 1931 a small locust research organization at the Imperial Institute of Entomology in London was internationally adopted as the world centre for locust research. This organization, later known as the Anti-Locust Research Centre, has during the past twenty years received and co-ordinated information on locust movements and breeding from 40 countries, undertaken scientific research into the life-history and habits of the different species, and investigated and developed methods for their control and destruction. One-half of the expenditure on control is contributed by the member countries of the Commonwealth, the United Kingdom itself contributing one-third.

Other Research Work

Finally there are a number of scientific institutions administered by Government Departments which undertake a certain amount of research work in addition to their other scientific activities. These include the Royal Botanic Gardens (Kew) and the Ordnance Survey Department.

Scientific Museums

The British Museum (Natural History)—an independent section of the British Museum—contains one of the world's largest collections of natural history material and is recognized as a leading research institution.

The Science Museum illustrates the development of pure and applied science in all countries, but chiefly in Great Britain which has always held a leading place in engineering, agriculture, navigation, mining, aeronautics, and in the development of industrial machinery and processes, all of which are represented in the Museum's collections. The geology of Britain is known in more exact detail than that of any other country in the world, and the Geological Survey, responsible for this work, also has an outstanding collection of exhibits in its Geological Museum. These three museums are in South Kensington, London.

Important collections outside London are the Museum of Science and Industry Birmingham, and the Museum of the History of Science, Oxford.

The Parliamentary and Scientific Committee

The Parliamentary and Scientific Committee was founded at the end of 1939 by members of the House of Commons and replaced the former Parliamentary Science Committee. It is one of a number of informal, unofficial, all-party Parliamentary groups, which have grown up spontaneously and have a varying degree of influence (see p. 32). Membership is open to members of Parliament of any party and in both Houses, and also to nominated representatives of such non-profit-making scientific and technological organizations in Britain as may be affiliated under its constitution. Membership in 1954 comprised 161 members of Parliament and representatives of 94 scientific and technological institutions. The aims and objects of the committee are:

1. To provide members of Parliament with authoritative scientific information from time to time in connection with debates.
2. To bring to the notice of members of Parliament and Government Departments the results of scientific research and technical development which bear upon questions of current public interest.
3. To arrange for suitable action through parliamentary channels whenever necessary to ensure that proper regard is had for the scientific point of view.
4. To examine all relevant legislation and to take such action as may be suitable.
5. To watch the financing of scientific research.
6. To provide its members and other approved subscribers with a regular summary of scientific matters dealt with in Parliament.

Broadly speaking the activities of the committee may be divided under two headings. First it provides, as far as possible, for a regular exchange of information between members of Parliament and scientists; secondly, it endeavours to ensure that action is taken to right matters seen to be wrong in the light of such information.

Scientific Liaison Overseas

The history of scientific progress is essentially a story involving many nations, and the organization of a country's scientific research would be incomplete without provision for adequate liaison with other countries.

Before the second world war a vast amount of international scientific collaboration took place through the exchange of university staffs, the awards of scholarships and fellowships, the close relations existing between the learned societies in this country and their equivalent bodies abroad, and through international conferences and congresses.

The war and the post-war period saw the emergence of a number of new developments in oversea scientific collaboration which reflected the Government's recognition of its responsibility in the whole field of science. The result has been that today there are various official channels through which scientific liaison can be conducted; these include:

1. *The British Commonwealth Scientific Offices.* A feature of the war-time pattern of scientific collaboration was the establishment of Scientific Missions, in London

by the United States and the Commonwealth countries, and in Washington by the United Kingdom and the other Commonwealth countries; the latter subsequently joined together as the British Commonwealth Scientific Office in Washington. Immediately after the war a British Commonwealth official Scientific Conference was held in London, and in view of the success of the office in Washington during the war period, it was recommended that this office be continued in peace time, and in addition that a British Scientific Office be set up in London. These recommendations were approved by all Commonwealth Governments. Since 1948 the Scientific Offices in London of the Commonwealth countries have been located in the same building, and are closely associated with the Overseas Liaison Division of the DSIR.

2. *The Standing Committee on Overseas Scientific Relations.* This committee of the Advisory Council on Scientific Policy was set up after the war to provide, among other things, for discussion of general policy on oversea scientific representation, scientific relations with Commonwealth and foreign countries, and scientific aspects of the work of the United Nations.

3. *The Overseas Liaison Division of the DSIR.* This division is responsible for the executive work arising from the Standing Committee's activities. It is regarded as the general inter-departmental body responsible for oversea scientific liaison, and is placed within the Department of Scientific and Industrial Research for convenience of organization.

4. *Commonwealth Agricultural Bureaux.* Machinery exists in the Commonwealth Agricultural Bureaux for liaison in the field of agricultural science between countries of the Commonwealth. In the United Kingdom there are 10 Bureaux, specializing in various branches of agricultural science, and two Institutes—the Commonwealth Mycological Institute and the Commonwealth Institute of Entomology. A third Institute, the Commonwealth Institute of Biological Control, has its headquarters in Ottawa, Canada. The Bureaux collect, collate and disseminate information resulting from agricultural research.

5. *The British Council.* The aims of the British Council in the pure and applied sciences are to foster closer co-operation between British scientists and scientists of other countries, and to promote a better understanding of Britain among oversea specialists by disseminating a knowledge of British activities and achievements. Under the first objective the exchange of visits between scientists in the United Kingdom and other countries is of prime importance. Besides arranging lecture or advisory tours overseas by eminent British scientists, the British Council, among many activities of a similar nature, brings to the United Kingdom every year a number of senior oversea specialists, postgraduate students and technicians on visits of varying duration, for the purpose of study in British universities and other institutions, or for discussion with British experts. In addition to publishing the *British Medical Bulletin*, intended primarily to keep oversea specialists informed of progress in medical research in Britain, the Council maintains an extensive and much used specialist information service. In the 60 countries in which the British Council is represented, libraries are maintained and in many instances these have strong sections of scientific and technological literature.

The British Council maintains at its headquarters specialist departments for medicine and science (including agriculture and engineering), while in some countries scientists are attached to its oversea representatives. The Council is advised by eminent scientists who serve on its Science Advisory Committee and on specialist panels for the different subjects.

Government Expenditure on Research

Central Government funds to a total of over £196 million for scientific research and development were voted for the financial year 1955–56. Besides Civil Estimates of £178 million, this sum included[1] £17·5 million in respect of Navy Estimates and £603,000 in respect of Air Estimates. Included in the Civil Estimates were: Ministry of Supply £157·7 million; Department of Scientific and Industrial Research £6·5 million; Ministry of Agriculture, Fisheries and Food £4·6 million; Medical Research Council £2·2 million; Colonial Development and Welfare £1·3 million; Agricultural Research Council and Nature Conservancy £1·4 million.

In addition to the above figures, over £51 million has been voted to the Lord President to enable the Atomic Energy Authority (see p. 379) to carry out research into, and the development of, atomic energy.

THE PROMOTION OF THE ARTS

Various institutions are concerned either wholly or in part with the preservation of Britain's cultural heritage and the promotion of literature and the arts. There is no Ministry of Fine Arts or equivalent organization to formulate or administer policy in the arts, though bodies such as the Standing Commission on Museums and Galleries (appointed 1931) and the Royal Fine Art Commission (appointed 1924) act in an advisory capacity. Government interest in the arts is expressed mainly through the provision of grants to such bodies as the Arts Council, the British Council, the British Film Institute (see p. 396), and the Council of Industrial Design (see p. 390), and also to the national museums and art galleries (see p. 378). In addition, under the Local Government Act, 1948, local authorities may now use part of the revenue from the rates for the encouragement of the arts. Local education authorities also make grants to some schools of art, music and drama.

The Arts Council of Great Britain was established under a Royal Charter in 1946. It consists of not more than 16 honorary members appointed by the Chancellor of the Exchequer in consultation with the Minister of Education and the Secretary of State for Scotland. Its main duties are to increase the accessibility of the fine arts to the public, to improve the standard of execution in the fine arts, and to advise and to co-operate with Government Departments, local authorities and other organizations on any matter connected directly or indirectly with these objects. The corresponding body in Northern Ireland is CEMA (Council for the Encouragement of Music and the Arts).

The British Council exists to promote overseas a wider knowledge of the United Kingdom and the English language and to develop closer cultural relations with other countries. It was founded in 1934 and was granted a Royal Charter in 1940. Nine of the 30 members of its Executive Committee are nominated by Government Departments; it is financed almost entirely from public funds, mainly through the Foreign Office. In the Commonwealth it acts directly as the agent of the Commonwealth Relations Office and the Colonial Office. It is usually designated as the Government's principal instrument for the implementation of cultural conventions to which the United Kingdom is a party.

The Council maintains staffs who, in about 60 oversea countries, foster English studies, provide regular information on British life and thought and promote knowledge of the scientific, artistic and other developments and achievements of the United Kingdom.

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[1] Full particulars will be found in *Civil Estimates* 1955–56. Memorandum by the Financial Secretary to the Treasury, Appendix A, pp. 21–24. HMSO.

In the United Kingdom itself, the Council arranges study programmes for scholars and teachers from overseas, and other professional visitors. It also provides a wide range of services for students from overseas (particularly those from the dependent territories) who are studying in United Kingdom universities and other educational institutions.

Unofficial institutions concerned with the promotion of the arts include many charitable trusts and foundations, e.g., the Carnegie United Kingdom Trust and the Pilgrim Trust, and a large number of societies, associations and other organizations concerned with separate aspects of the arts, some of which are mentioned later in this chapter.

The Carnegie United Kingdom Trust was founded in 1913 by the late Andrew Carnegie. It was incorporated under Royal Charter in 1917. The Trust, which was initially founded for 'the improvement of the well-being of the masses of the people of Great Britain and Ireland', consists of 25 life trustees, 6 trustees nominated by the Corporation of Dunfermline and 3 trustees nominated by the Fife County Council. Its cultural policies include the support of adult amateur activities in music, drama and the visual arts. It also supports non-national museums. Grants totalling approximately £21,124 were made for these purposes during the year ended 31st December 1954.

The Pilgrim Trust was founded in 1930 by the late Edward Stephen Harkness, an American citizen. The Trust, which has an income of about £140,000 a year, is administered by a body of trustees who are empowered to make grants towards any legally charitable object within the United Kingdom. In fact, the greater part of the Trust's income is at present being used to help to preserve the nation's heritage of architecture and history, and for the advancement of learning and the arts. The grants made for these objects during 1954 amounted to £115,562.

VISUAL ARTS

The fine arts of painting and sculpture in Britain receive State support by grants to national institutions and, indirectly, through grants made to the Arts Council, to municipal art galleries and museums, and to local education authorities for art schools and other means of promoting education in art. There are at present a number of British painters and sculptors of international repute as well as younger artists of great promise; and interest in their work and that of their contemporaries overseas, as well as in that of British and foreign artists of the past, is most marked in all sections of the community.

In the year April 1954 to the end of March 1955 the Arts Council arranged 82 separate art exhibitions in Great Britain; 323 showings of these exhibitions were given in 157 different places. Knowledge of British fine arts is fostered overseas by the British Council by means of exhibitions, the dissemination of reproductions and photographs, lectures, and the provision of information and advice to inquirers abroad and to visitors in Britain. In the year ended March 1955, 26 different exhibitions organized by the Council were shown in 35 countries. The Council was also responsible for British participation in 10 international exhibitions.

Museums and Art Galleries

There are in all about 750 museums and art galleries open to the public in Great Britain, though many are only small collections or merely a few rooms set aside in a public building for the display of local treasures.

The national museums and art galleries in London probably contain between them the most comprehensive collection of objects of artistic, archæological, scientific,[1] historical and general interest ever to exist within one city. The British Museum, which celebrated its bicentenary in 1953, has unparalleled collections of archæological and ethnographical material from every part of the world, in addition to housing the national library of printed books, manuscripts, newspapers and periodicals; its Department of Prints and Drawings also possesses collections of the widest extent and richness. The Victoria and Albert Museum contains works of fine and applied art of all countries and periods, arranged mainly according to material, though since the war primary collections have been arranged to bring together, by style, period or nationality, masterpieces of all the arts. The National Gallery presents paintings by almost all the greatest European masters. The Tate Gallery embodies two collections: the British school from the eighteenth century onwards, with a few earlier works, and modern foreign schools since 1850. Both sections include modern sculpture. Frequent loan exhibitions are held in the gallery.

Other important collections in London are at the National Portrait Gallery, the Imperial War Museum, the National Maritime Museum at Greenwich, the London Museum (reopened in Kensington Palace during 1951), and Hertford House, where the famous Wallace Collection (furniture, *objets d'art* and paintings, mainly French of the seventeenth and eighteenth centuries) is housed. Many of the national institutions in London suffered war damage to their buildings, and the financial stringency of the post-war years combined with lack of space and staff has resulted in these great museums and art galleries being still unable to do justice to the wealth of material they possess.

The Ministry of Education is responsible for the administration of the Victoria and Albert Museum. The other national institutions have their own Boards of Trustees, but all receive Treasury grants.

There are five national museums and art galleries in Edinburgh: the National Museum of Antiquities of Scotland, the National Gallery of Scotland, the Royal Scottish Museum, the National Portrait Gallery of Scotland, and the Scottish United Services Museum; and in Cardiff is the National Museum of Wales with its branch at St. Fagans Castle where the Welsh Folk Museum is housed. A Northern Irish Folk Museum is proposed for Belfast. The Belfast Museum and Art Gallery is municipally owned, but serves unofficially as a national institution for the whole of Northern Ireland.

Almost every city and large town has a museum devoted to art, archæology and natural history, usually owned by the municipal authority but sometimes by a local learned society or privately by individuals or trustees to whom some rich collector in the past has bequeathed his treasures. A notable example in the last category is the Bowes Museum at Barnard Castle, Durham, containing one of the finest art collections outside the capital cities. Both Oxford and Cambridge are rich in museums—the Ashmolean Museum in Oxford, founded in 1683, is the oldest in the country and the Fitzwilliam Museum in Cambridge has fine art galleries and a notable collection of engravings, manuscripts and books bequeathed by its founder on his death in 1861. Other universities have important collections, primarily for teaching purposes but also open to the public. Other cities with important museums and art galleries are Birmingham, Bristol, Glasgow, Leeds, Leicester, Liverpool (where part of the museum building destroyed in the war is now being rebuilt), Manchester, Norwich, Southampton, and York where the Castle Museum, with its complete reconstruction of an eighteenth-century street of shops, offers a most interesting historical display. In recent years there has been a notable development of 'period-house museums', in which outstanding examples of the private residences of former times have been taken over by national and municipal authorities for this purpose, as at Temple Newsam, Leeds; Aston Hall, Birmingham; and the Royal Pavilion, Brighton.

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[1] For information on the scientific museums, see pp. 383–4.

Temporary exhibitions, particularly on art subjects, including circulating exhibitions produced by the Arts Council, the Art Exhibitions Bureau, and the Circulation Department of the Victoria and Albert Museum, are a regular feature of many museums.

The Museums Association, founded in 1889, is an independent organization to which museums and art galleries and members of their staffs throughout the country belong; there are also many oversea members. The Association serves as the central body for the collection of information and the discussion of matters relating to museum administration and practice, and as a training and examining body for professional qualifications. It also produces directories, a monthly journal, and other publications.

Financial assistance for improving the displays of the smaller museums is among the functions of the Carnegie United Kingdom Trust, which has done much to encourage the growth of the museum movement during the past twenty-five years, and at present expends an average of £10,000 a year in this field.

The various national art exhibiting societies include the Royal Academy, which, in summer, holds exhibitions of works by members and non-members and, in winter, a series of exhibitions devoted to national schools of painting; the Institute of Contemporary Arts; the Royal Society of British Artists; the Royal Institute of Oil Painters; the Royal Society of Painters in Water Colours; the Royal Society of Portrait Painters; and the London Group. Some of these societies, notably the Royal Academy at Burlington House, have their own galleries in London. There are also an increasing number of amateur art societies throughout the United Kingdom which hold local exhibitions and encourage local interest in the fine arts in a variety of ways. The Contemporary Art Society uses its members' subscriptions to buy modern works which it presents to the public galleries.

Exhibitions of works by old masters and living artists are held throughout the year in the galleries of the art dealers of Bond Street and other parts of the West End of London.

Art Education

There are 13 colleges of art in the United Kingdom, each serving a region, all of which offer courses in most branches of art and a varying range of crafts; and there are schools of art in nearly all the larger towns. In London the most notable of these schools and colleges are the Royal College of Art (a national college) and the Central School of Arts and Crafts of the London County Council, in both of which the emphasis is on industrial design, and the Slade School of Fine Arts in the University of London. At the Royal Academy Schools, founded in 1768, all instruction is provided free by Royal Academicians.

The leading academic institutions for the teaching and study of the history of art are the Courtauld Institute of the University of London, the Department of Classical Art and Archæology in University College, London, and the Warburg Institute (also a part of London University) which provides facilities for research on the character and history of the classical tradition.

Art has a place in the curriculum of every type of school and the Society for Education through Art encourages the purchase by schools of original works of art.

Industrial Design

Industrial design is the concern of the Royal Society of Arts, which was founded 'for the encouragement of arts, manufactures and commerce' (see p. 370), and of the Council of Industrial Design.

The Council of Industrial Design was set up in 1944 by the President of the Board of Trade with the purpose of promoting the improvement of design in the products of British industry. It is financed from public funds. The Council has 24 members, a majority being prominent industrialists, and there is a separate Scottish Committee. The Council arranges exhibitions at home and abroad, organizes conferences and courses, maintains *Design Review*, which is an up-to-date illustrated record of good design in current production as well as a record of designers, and publishes a monthly magazine, *Design*, for manufacturers, retailers and designers. A permanent design centre will be opened in the Haymarket, London, in 1956.

Architecture

The great interest in architecture shown in Britain since the end of the second world war is reflected in the importance which the State accords to this branch of the arts and in the number of professional, advisory and other societies and institutions which exist to further the development of modern architecture and the preservation of architecture of historic value.

The Government Departments chiefly concerned are the Ministry of Housing and Local Government, the Department of Health for Scotland, and the Northern Ireland Ministry of Health and Local Government, which are responsible in their respective countries for approving the layout and design of local authority housing schemes, and which issue reports and circulars setting standards for local authority housing. The Education Departments are responsible for the supervision of building for the public education service. The Ministry of Works is the Department concerned with the preservation of historic buildings and ancient monuments in Great Britain.[1] All these departments have architects on their staffs.

There are several State-sponsored organizations concerned with special aspects of architecture. The Royal Fine Art Commission, appointed by Royal Warrant, advises Government Departments and other public and quasi-public bodies on questions of public amenity or artistic importance. The National Buildings Record maintains a library (open to the public for consultation) of photographs of English and Welsh architecture and an index of architectural records in public and private possession. The Royal Commissions on Ancient and Historical Monuments for England, for Wales and Monmouthshire, and for Scotland, record in detail all ancient and historical remains in their countries and publish a series of surveys, designed ultimately to cover the whole of Great Britain. The Ancient Monuments Boards for England, Scotland, and Wales, set up under the Ancient Monuments Acts, consider which monuments should be listed in accordance with those Acts and advise the Minister of Works on any questions concerning ancient monuments. The Historic Buildings Councils for England, Scotland, and Wales, constituted under the Historic Buildings and Ancient Monuments Act, 1953, advise the Minister on the provision of grants towards the repair and maintenance of such buildings and their contents.[2] An Historic Buildings Bureau has been set up to find new uses for unoccupied historic buildings of outstanding interest.

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[1] In Northern Ireland, responsibility for the preservation of ancient buildings is vested in the Ministry of Finance.

[2] Between July 1953 and the end of September 1955, 241 grants to the total value of £742,378 were made by the Historic Buildings Councils for England, Scotland, and Wales.

The leading professional architectural institution in the United Kingdom is the Royal Institute of British Architects (RIBA) which holds meetings at which papers are read and discussed, publishes a Journal and holds exhibitions, promotes and controls the training of architects through its Board of Architectural Education, and has one of the largest and most important architectural libraries in the world, housing over 65,000 books, periodicals and drawings. Well-known societies include the Architectural Association, the Architecture Club, and a number of societies interested in particular aspects of architecture, for example, the Mars Group—the English Branch of Les Congrès Internationaux d'Architecture Moderne—and the Modular Society. Among the preservation societies are the Georgian Group, which is a society designed to awaken interest in Georgian architecture and to save Georgian buildings from destruction; the Society for the Protection of Ancient Buildings; the National Trust in England, Wales and Northern Ireland and the National Trust for Scotland (see p. 362), which together own more than a hundred houses of historic or architectural interest, many of which contain pictures and other works of art which are on view to the public; and the Historic Churches Preservation Trust, formed in 1952, under the chairmanship of the Archbishop of Canterbury, with the aim of raising £4 million to supplement, by grants, the efforts of parishes to put their churches into good repair.

Education in architecture is given at 18 schools of architecture recognized for exemption from the RIBA Intermediate and Final Examinations and 6 schools of architecture recognized for exemption from the Intermediate Examination only. There are also 50 schools of art and technical institutions (14 full-time) with facilities for the instruction of intending architects, which prepare students for taking externally the examinations of the RIBA. It is against the law for any person to practise or carry out work under any name, style or title containing the word 'architect' unless he or she is registered. The statutory body which regulates registration is the Architects' Registration Council of the United Kingdom.

LITERATURE

A knowledge of literature is fostered in the United Kingdom by the schools, colleges and universities of the country, in all of which English literature is taught either as part of a general course or as a specialist subject. Interest in the subject is thereafter maintained by the libraries, by the very large number of private literary societies (both national and local), and by the numerous periodicals concerned in whole or in part with literature, of which the best-known critical weekly is the *Times Literary Supplement.* State support for literature is given through the Arts Council, which assists poetry—especially poetry readings—in Great Britain, and through the British Council, which is active in encouraging a knowledge of English literature abroad. Recognition of outstanding literary merit is given in the form of literary prizes, a number of which are awarded annually, e.g., the two James Tait Black Memorial prizes for biography and literature, the John Llewellyn Rhys Memorial prize for young writers of promise, the Hawthornden prize for imaginative writing, and the Somerset Maugham award for young writers.

Libraries

The largest library in Britain is that of the British Museum in London (more than 6 million printed books). The National Library of Scotland (nearly 2 million volumes) is in Edinburgh and that of Wales in Aberystwyth (more than 1 million volumes). Together with the Bodleian Library in Oxford (over 2 million volumes) and the Cambridge University Library (over 2 million volumes) these comprise the 'copyright' libraries of the country and are entitled to receive a copy of each new book published in Britain.

Other great libraries are[1]: the London Library (the largest public subscription library, 600,000 volumes); the University of London Central Library (580,000)[2]; Edinburgh University Library (625,000); Glasgow University Library (426,800); St. Andrews University Library (519,500); the John Rylands Library, Manchester (500,000); the Science Museum Library (390,000); the Patent Office Library (356,000); the Victoria and Albert Museum Art Library (300,000); the National Library for the Blind (300,000—Braille and Moon types); the British Library of Political and Economic Science (350,000); the British Museum (Natural History) Library (300,000); the India Office Library (280,000); Queen's University Library, Belfast (200,000); the Royal Institute of International Affairs Library (91,000); the Royal Geographical Society Library (90,000); the Imperial Institute Library (100,000); the Public Record Office Library (which contains the National Archives and the National Register of Archives); the Royal College of Music Library (160,000); the British Drama League Library (90,000); the Library of the Royal Institute of British Architects (60,000); the Royal Academy of Music Library (60,000); and the Central Music Library (29,000). The Arts Council has founded a reference library of modern English poetry, which is housed with the National Book League.

An important feature of library services in Britain is the co-operation within the closely knit network of libraries which greatly increases the value of the service. Library co-operation is organized regionally in the first instance, through Regional Library Bureaux, and is finally centralized in the National Central Library with its widespread system of outlier libraries (public, university and special) giving access to a total stock of 21 million books.

The public libraries of Britain are maintained in every county and county borough and in many boroughs and urban districts by 578 public library authorities. Together, these authorities provide more than 31,000 service points; they hold over 58 million books and make more than 380 million loans a year. A feature of the service in rural areas is the travelling van, which is an itinerant library.

In addition to lending books, and providing special libraries for children, public libraries engage in many kinds of extension activities, such as play readings, lectures, film shows, music circles and co-operation in University Extension adult education.

The two principal professional bodies to which librarians belong are the Library Association and the Association of Special Libraries and Information Bureaux (ASLIB). Whereas the Library Association, with a membership of over 11,000, attempts coverage of the whole field of library work—public, university and special—ASLIB, which is a documentation centre and is financed by the Department of Scientific and Industrial Research, operates in a more specialized field. One of its activities, for example, is the maintenance of an index of translations, especially from Russian and German, which have been or are being made in Britain.

Books

The output of new books in Britain amounts to over 13,000 new titles a year—in 1954, for example, British publishers issued a total of 19,188 separate titles, of which only 5,846 were reprints or new editions. In that year, the annual figures for new titles under literary subject headings were: bibliography and literary history, 248; biography, 437; essays, 81; fiction, 2,532; poetry and drama, 526.

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[1] This list provides only an arbitrary selection of some of the largest libraries. Unless otherwise stated these libraries are situated in London where there are more than 500 libraries; and see also p. 370.

[2] The total holding of all the libraries (college and special) of London University is over 2½ million volumes.

Some classes of books are produced as Government publications by Her Majesty's Stationery Office, which is the largest publishing organization in Britain; the great majority of books, however, are produced by commercial publishers, including the university presses, notably the Clarendon Press (Oxford) and the Cambridge University Press, which publish many outstanding literary works. Leading organizations representing the interests of those concerned with book production are the Publishers' Association, the Booksellers' Association, and the Society of Authors.

Literary Societies and Institutions

Societies and institutions concerned with the promotion of literature in its various forms include: the National Book League (13,000 members), which encourages the reading of and an interest in books, and which holds exhibitions, including the widely popular annual exhibitions of book design; the English Association (3,000 members), which aims at upholding the standard of English writing and speech; the Royal Society of Literature (250 members and 250 fellows), which is concerned with the advancement of literature; the Royal Society of Edinburgh (790 fellows), which promotes science and literature; and the British Academy, which is an organization concerned with humanistic studies and has a section dealing with literature and philology.

Interest in poetry is encouraged by the Poetry Society (3,000 members); by the annual National Eisteddfod—the bardic festival held in Wales, the origins of which date back to the seventh century; and by the Apollo Society which, supported by the Arts Council, presents a number of poetry readings in which music as well as poetry forms part of the programme.

Among the specialist literary societies are the Early English Text Society, the Bibliographical Society, the Edinburgh Bibliographical Society, and several societies devoted to particular authors, of which the largest is the Dickens Fellowship (10,000 members).

There are also a number of clubs and societies, such as the Book Society (18,500 members), which exist to distribute selected new books to their members. The most recently established is the Poetry Book Society (700 members), which was set up in 1954 under the auspices of the Arts Council.

DRAMA

State patronage of the drama is expressed through (*a*) the Arts Council, which grants subsidies to certain theatrical managements operating on a non-profit-making basis (i.e. using profits to finance future productions), provided that such managements have given evidence of serious aims and of consistently high standards of practical competence, (*b*) the Customs and Excise Department, which has power to grant remission of entertainments duty to certain managements, chosen on the same principles as those applied by the Arts Council, and (*c*) the British Council, which is responsible for making the British theatre better known abroad by organizing and sponsoring international tours by important companies, including the Old Vic Theatre Company and the Shakespeare Memorial Theatre Company, and by sending overseas exhibitions of theatrical design and lecturers on drama. Moreover, the Treasury is empowered, under the National Theatre Act, 1949, to support the scheme for a national theatre by contributing £1 million to the cost of building and equipping a theatre, in London, which would operate under public auspices.

Professional Theatre

The centre of the professional theatre is in London, where there are some 45 principal theatres and a number of suburban and 'little' theatres. These are let to producing managements on a commercial basis for every type of theatrical entertainment. There are also theatres in Scotland, Northern Ireland and in the provinces of England and Wales, which are served by productions touring either before or after London presentation, by companies specially formed for touring, and by local repertory companies. No new theatres have been built in the United Kingdom since the end of the second world war, but several damaged ones have been reconstructed, some have been converted from other uses, and Coventry has a plan for the building of a new theatre.

In addition to managements which rent theatres for limited or long runs, there are a few producing organizations which possess theatres of their own. Among the older and better known of these organizations are the Old Vic Theatre Company in London and the Shakespeare Memorial Theatre Company at Stratford on Avon, both of which are permanent companies presenting their plays in true repertory. Local repertory companies (some of which are assisted financially and otherwise by the Arts Council or CEMA) may have the use of their own established repertory theatres, e.g., the Bristol Old Vic Company at the historic Theatre Royal in Bristol, or they may tour the various towns and villages in the locality, playing from one to several nights in each place and using any building which can be made suitable for the purpose. The London Children's Theatre, a non-profit-making organization, presents children's plays in London and the provinces. The Open Air Theatre in Regent's Park, London, is used for a summer season of repertory, mainly of Shakespeare and other poetic drama. The Ulster Group Theatre in Belfast specializes in Irish drama. Inevitably, the work of repertory companies varies in quality but, generally speaking, the standard of both production and acting is high; many of the leading dramatists, producers and actors in the United Kingdom started their careers with companies of this kind.

Both in London and in the provinces, most managers and artists are members of one or another of the professional organizations which exist to maintain the standards of the professional theatre, to regulate the industry and to promote and safeguard the welfare of those who work in it. Organizations of this kind include the London Theatre Council, the Provincial Theatre Council, the Society of West End Managers, the Theatrical Managers' Association, the Council of Repertory Theatres, British Actors' Equity (the actors' trade union), and the League of Dramatists. The trade union of theatre staffs is the National Association of Theatrical and Kine Employees.

The Society for Theatre Research brings together those interested in the history and technique of the British theatre.

Amateur Theatre

The amateur dramatic movement is widespread throughout the United Kingdom; there are thousands of amateur dramatic societies. The movement is sponsored and fostered by local education authorities, by other public bodies, and by four special organizations—the British Drama League, the Standing Conference of Drama Associations, the Scottish Community Drama Association, and the Ulster Drama League.

The British Drama League, which was founded in 1919, operates on a basis of affiliation and individual membership. Its many services to its members include organizing courses, lectures and competitions in dramatic work; running an information bureau; and giving advice on many matters connected with the stage, e.g., play-writing, production, stage management and the organization of drama festivals. The work of the Standing Conference is mainly that of co-ordination between the various bodies concerned in the amateur dramatic movement; while the Scottish Community Drama Association fulfils, in Scotland, the functions of both the League and the Conference and is supported by the Scottish Education Department.

The Universities of Oxford and Cambridge have famous dramatic societies, and there are drama clubs and societies in many other universities and colleges.

Dramatic Training

Dramatic training is provided mainly in the large number of dramatic schools and institutions of all kinds which have been established throughout the United Kingdom. Among the most important of such institutions are the Royal Academy of Dramatic Art (which was founded in 1904 and is now grant-aided, and which provides a two-year course in all branches of stage work), the Central School of Speech Training and Dramatic Art, the Webber-Douglas School, the London School of Music and Dramatic Art, the Sadler's Wells School (which provides a general education and training for the ballet), the Royal Academy of Dancing, all of which are in or near London; and the Old Vic School in Bristol.

Some form of education in drama is also provided in many of the schools and youth clubs of Britain, and a varying degree of recognition is given to the subject in the universities. Bristol University leads in this direction in that it has created a Department of Drama offering a course which an Arts student may take as part of his or her general degree.

FILMS

The first cinematograph exhibition in Britain was given in 1896 and within ten years Britain was in the forefront of film production. This early ascendancy did not survive the impact of the first world war and since 1914 British films have had to contend with keen American competition. Legislation, first introduced in 1927 and continued by the Cinematograph Films Acts of 1938 and 1948, has given some assistance by means of the quota system, under which a certain proportion of British films must be shown in British cinemas each year. The proportion is fixed annually by Board of Trade Order, after consultation with the Cinematograph Films Council, and is subject to confirmation by Parliament.

During the second world war the British cinema re-emerged with new vitality and began again to exert an important influence on film development by the production of many notable feature films depicting Britain's ordeals and achievements in the war. These films were based on the documentary technique which had been developed since 1929 for the making of factual informative films sponsored by the Government or by commercial organizations. British feature films in the post-war years have been influenced by this trend, and realistic treatment is now a characteristic of British feature production, both in dramatic films and in the light-hearted satirical comedies that have won acclaim in recent years.

The art of film production is a costly one which depends upon a commercially prosperous industry for its development and well-being, and needs adequate financial backing combined with freedom for the film maker to experiment and to express his own ideas. There is no State-owned feature production unit in Britain, but the National Film Finance Corporation is empowered to lend money for film production. The Corporation was established for a period of five years under the Cinematograph Film Production (Special Loans) Act, 1949. In 1954 another Act extended its life for a further three years. Its members—a chairman, a managing director, and three to five others—are appointed by the Board of Trade. Its funds (limited by statute to £8 million) are provided, up to £6 million, by advances from the Board of Trade; the remaining £2 million may be borrowed from non-Governmental sources.

Another financial aid to film-making is provided by the British Film Production Fund (the Eady Fund). Money for the Fund is raised by a levy on cinema admissions, and is paid out as a percentage of a film's takings. Thus the more successful a film is at the box-office, the more it receives from the Fund. The British Film Production Fund, which was started in September 1950, is non-statutory and exists as the result of a renewable agreement between the various trade associations, subject to Board of Trade approval. The present agreement continues the life of the Fund until the end of July 1957.

The development of the film as an art is promoted by the British Film Institute which is financed by Exchequer grants. The Institute administers the National Film Archive and the National Film Theatre in London.

The number of production companies, studios and, to a lesser extent, cinemas in Britain varies with the financial state of the film industry. In 1955 there were 37 feature production companies belonging to the British Film Producers' Association, 56 short film or specialized film producers belonging to the Association of Specialized Film Producers, and approximately 4,700 cinemas.

MUSIC, OPERA AND BALLET

In Britain today, music in all its forms is drawing large audiences; and orchestral concerts, choral singing, music festivals, opera and ballet are important features of British cultural life.

The British Council has done much to make British music and ballet companies more widely known throughout the world. Tours of British orchestras, soloists and opera and ballet companies are arranged, recordings of works by British composers are sponsored, and libraries of British music (recorded and in printed score) are maintained in 57 countries overseas. At the Council's headquarters in London, a central music reference library of music literature, scores and recorded music is maintained for the use of visitors. Distinguished musicians from overseas are invited to Britain as guests of the Council to gain some first-hand experience of British music and musicians, and extensive arrangements are made to cover each individual interest.

Music

Seasons of orchestral concerts are promoted every year in all the large towns and cities of Britain, some of which have well-known concert halls. In London, the principal concert halls are the Royal Festival Hall on the South Bank of the Thames, which was opened in 1951 in connection with the Festival of Britain; the Royal Albert Hall, Kensington; and Wigmore Hall, which is the premier recital centre.

Among the leading British orchestras are the London Symphony Orchestra, the BBC Symphony Orchestra, the London Philharmonic, the Royal Philharmonic, the Philharmonia, the Hallé (Manchester), the Liverpool Philharmonic, the City of Birmingham Orchestra, the Bournemouth Symphony Orchestra, the Scottish National Orchestra and the BBC Scottish Orchestra. There are also the specialized string orchestras such as the Boyd Neel Orchestra and the Jacques Orchestra; and a number of new orchestras which have been formed during the past few years. Many of these orchestras receive financial aid from the Arts Council, to assist in the cost of maintaining ensembles, of presenting new or unfamiliar works, and of improving standards generally. The City of Belfast Orchestra is financed jointly by the Belfast Corporation and CEMA.

The principal choral societies in Britain are the Royal Choral, the BBC Choral, the Huddersfield Choral, the Hallé Choir, the Liverpool Philharmonic Choir, the London Philharmonic Choir, and the Bach Choir. These and many other choral societies are associated with famous orchestras in major choral works; most of them, together with hundreds of similar choral and orchestral societies and music clubs, are affiliated to the National Federation of Music Societies, through which they are supported with funds provided by the Arts Council.

Music festivals in Britain, originating with the Three Choirs Festival held annually in Gloucester, Worcester or Hereford in rotation, have been in existence for over 200 years. The festival idea has developed considerably in recent years, and festivals of music and other arts are now held annually in many cities and towns throughout the United Kingdom. They range from the famous Edinburgh International Festival of Music and Drama, which lasts three weeks and attracts many thousands of visitors, to those, such as the Aldeburgh Festival, lasting a week or less. Among the better known are the Llangollen International Eisteddfod; the National Eisteddfod of Wales; the National Gaelic Mod held at a different place in Scotland each year; the Cheltenham Festival, devoted to contemporary British music; and the Leeds and Norwich Festivals of choral music, which are held on a triennial basis. An annual international festival of folk song and dancing is held by the English Folk Dance and Song Society.

Interest in amateur music-making is increasing. It is encouraged by the work of County Music Committees,[1] which are aided by the Carnegie United Kingdom Trust and united in the Standing Conference of Music Committees.

Professional organizations, which look after the interests of music and musicians, include the Musicians' Union, the Incorporated Society of Musicians, the Composers' Guild, and the Songwriters' Guild.

Specialized education in music is given at Colleges of Music, of which the most prominent are the Royal Academy of Music and the Royal College of Music in London, the Royal Manchester College, and the Royal Scottish Academy in Glasgow, all of which receive grants-in-aid. There are also the Trinity College of Music and the Guildhall School of Music and Drama in London. Youth orchestras are strongly encouraged, and children's concerts, given by symphony orchestras directed by prominent conductors, are a regular feature of the country's musical activities and have helped to develop among the youth of the community an appreciation of the world's greatest music. The National Youth Orchestra, made up of the most promising of the younger musicians, is noted for its high standard of performance.

Opera and Ballet

Regular seasons of opera and ballet are given at the Royal Opera House, Covent Garden, which is leased by the Government[2] to the Covent Garden Opera Trust, which was formed in 1944 to make the famous opera house the home of a national opera and ballet, and which receives a Government grant through the Arts Council. The Royal Opera House has its own resident opera company and ballet company (the Sadler's Wells Ballet) which give performances both in London and elsewhere.

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[1] Some of these are voluntary committees and some are local education authority sub-committees.

[2] The Ministry of Works acquired a 42-year lease from Covent Garden Properties Limited in 1949.

The opera company, which numbers about 200 and has a permanent orchestra, makes an annual tour of provincial centres; and the Sadler's Wells Ballet has a high international reputation gained during its visits in recent years to Canada and the United States and through its European tours, arranged by the British Council.

Seasons of opera and ballet are also given at the Sadler's Wells Theatre in London, which, like the Royal Opera House, Covent Garden, has its own opera company and ballet company (the Sadler's Wells Theatre Ballet); and at Glyndebourne in Sussex, an opera season, for which a company is specially assembled, is held every year. Other opera companies include the Carl Rosa, one of the oldest opera organizations in Britain; the English Opera Group, formed in 1947, and noted for its small-scale performances of opera; and Intimate Opera, which tours the provinces, giving performances in any hall available and introducing opera to those who have hitherto been unfamiliar with it. There are also a number of amateur opera clubs both in London and in the provinces, including the City Opera Club (of London) and the Welsh National Opera Company, which is an amateur society reinforced with professional soloists. Among the ballet companies are the Ballet Rambert, the Festival Ballet and the recently established Ballet Comique. Training in ballet is given at the Sadler's Wells School, which has played a large part in raising British ballet to its present high standard.

XIII. SOUND AND TELEVISION BROADCASTING

Sound broadcasting services in the United Kingdom are undertaken solely by the British Broadcasting Corporation (BBC), which was created as a public corporation by Royal Charter in 1927. The British Broadcasting Corporation was also solely responsible for the television transmission services until September 1955, when an alternative television service, controlled by the Independent Television Authority (ITA), first came into operation (see p. 406).

The BBC derives its legal powers to maintain broadcasting stations from its Licence and Agreement with the Postmaster-General. The Agreement contains financial clauses and also certain general provisions concerning the manner in which the broadcasting services should be operated. The basis of the ITA's operations is a statutory one and is set out in the Television Act, 1954. The Postmaster-General also licenses the Authority to operate its television transmitters.

It has from the first been the agreed policy of Parliament that the BBC and the ITA should be free from control in the daily conduct of their business, including both the content of programmes and general administration. Thus, although Parliament retains ultimate control and the Postmaster-General, as the responsible Minister, is answerable to Parliament on broad questions of policy, the Corporation and the Authority have full freedom and responsibility for the day-to-day management of their affairs.

Users of receiving sets must obtain licences from the Post Office. The annual licence for the reception of sound broadcasting costs £1 (except in the case of registered blind persons whose licences are free); the licence for 'sound' and television together costs £3 (except in the case of registered blind persons whose licences cost £2). One licence covers all the receiving sets in a household, but a separate licence is required for a set fitted in a motor car.

The number of current receiving licences in the United Kingdom at the end of March 1955 was: sound 9,476,730 (including 62,506 free to blind persons, and 267,794 for sets fitted in cars), and television 4,503,766, making a total of 13,980,496. By the end of September 1955 the total was 14,154,439, of which 4,883,849 licences were for television sets.

THE BRITISH BROADCASTING CORPORATION

Policy and Constitution

The policy of the BBC is governed by its Charter, granted for successive limited periods, which establishes the BBC as a corporate body and refers to the value of its services as a means of disseminating information, education and entertainment. Under the current charter, which came into force on 1st July 1952 and expires in 1962, the Corporation consists of nine Governors (including a Chairman, Vice-chairman and national Governors for Scotland, Wales, and Northern Ireland) each appointed for a period of not more than five years on a part-time basis by Orders-in-Council on the advice of the Prime Minister. Subject to the parliamentary and ministerial control described above, the Governors are responsible as a corporate body for taking all final decisions regarding both sound and television broadcasting services.

In the discharge of this duty the Governors are advised by the Director-General, who is the chief executive officer of the Corporation and with whom they must discuss all major matters of policy and finance. The BBC's Board of Management is made up of the Director-General and six Directors, one of whom acts as chief assistant to the Director-General, the other five being responsible, under the Director-General, for Home Sound Broadcasting, Television Broadcasting, External Broadcasting, Technical Services, and Administration. The number of staff employed at 30th June 1955 was 13,789 (including 680 part-time personnel).

The BBC studies the needs and reactions of listeners through its Audience Research system; it is assisted by 31 advisory bodies and is constantly consulting outside authorities and experts, but its decisions are its own. In its various activities the BBC devolves responsibility at all levels to the greatest extent consistent with agreed policy and with its high standards of quality.

Finance

The services of the BBC are financed from (1) annual grants from the Exchequer related wholly or partly to revenue derived from the sale (by the Post Office) of wireless receiving licences; (2) profits from the BBC publications, mainly the *Radio Times*, which has a weekly sale of over 8 million copies and attracts a large advertising revenue; (3) a grant-in-aid from the Exchequer for the External Services.

Before the second world war all the BBC's operations were financed out of its proportion of licence income. During the war it was completely financed by grant-in-aid; but, as from 1st January 1947, the pre-war system of financing out of licence income was restored for all home broadcasting services including television.

An Agreement of June 1954 provided that, for the next three years, the Exchequer would retain £2 million each year from the licence revenue, and the Post Office would receive its actual expenses, estimated at £1,500,000 a year, to cover the cost of collecting licence fees and dealing with interference. In addition, up to £750,000 a year might be allowed for the use of the Independent Television Authority, otherwise it reverts to the Exchequer. The rest of the licence revenue goes to the BBC.

The gross revenue from the sale of broadcast receiving licences during the year ended 31st March 1955 amounted to £22,441,288 from which the Corporation received a net income of £18,943,844.

Net revenue from publications in the year ended 31st March 1955 amounted to £1,772,205 and grant-in-aid receipts were £5,015,000.

THE SOUND SERVICES

Sound broadcasting services provided by the BBC at home and overseas are as follows:

For Home Listeners

The BBC provides three main services for home listeners:

1. *The Home Service*, running continuously from 6.25 a.m. (7.50 a.m. on Sundays) to 11.8 p.m., is a carefully balanced programme designed to appeal to all sections of the community. It is the vehicle for the majority of the BBC's most important talks, for plays, concerts, documentary features and religious broadcasts, and also for all the educational broadcasts to schools (see p. 342). Many national and sporting events are broadcast from

the scene of action. The Home Service also includes controversial discussions, and time is allotted for party political broadcasts in a ratio agreed with the principal political parties.[1]

Linked with this basic Home Service are the six Regional Home Services covering Scotland, Wales, and Northern Ireland, and the North, Midlands, and West of England. These services carry many of the major items of the basic Home Service, but also include their own programmes produced within the region. Material is freely interchangeable over this network.

2. *The Light Programme*, running continuously from 9.0 a.m. (8.0 a.m. on Sundays) to midnight, is devoted to entertainment in the widest sense, and includes commentaries on every form of sport. It contains also a more serious element including book reviews, discussions, and some classical music.
3. *The Third Programme*, running continuously from 6.0 p.m. to 11.30 p.m. (and from 3 p.m. to 11.30 p.m. on Sundays during the winter months), is a cultural programme specially designed for the serious listener. It broadcasts, without regard to length or difficulty, programmes of music, art and letters (including lesser known works) likely to be of particular interest to such listeners, and it provides series of lectures by eminent speakers. It has been in operation since 29th September 1946.

News. Five news bulletins are broadcast daily in the Home Service and three in the Light Programme; in addition, a late night news summary is given on both programmes. For its sources of news, the Corporation relies on the leading news agencies, the BBC's correspondents at home and abroad, and the monitoring service.

VHF Transmissions

Since 15th March 1950 the BBC has operated on the wavelengths allocated in the Copenhagen Broadcasting Agreement.[2] There is, however, serious and increasing interference from transmitters on the Continent (the number of broadcasting transmitters in Europe is now almost double the number provided for in the Copenhagen Plan) and the BBC has begun to reinforce existing long and medium wave services by a network of Very High Frequency (VHF) transmitters, using frequency modulation. The BBC estimates that it will need more than 70 of these transmitters, placed at some 26 stations, to make the greatly improved reception ensured by the VHF system available to 98 per cent of the population. Each VHF station will transmit the Home, Light and Third Programmes on the broadcasting frequencies in the VHF band of 87·5 to 95 megacycles per second.

In May 1955 the first VHF station was opened at Wrotham in Kent. Ten more stations are expected to be in service by the end of 1956, including one temporary station. This will complete the first stage of VHF development and will cover

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[1] A direction issued by the Postmaster-General in July 1955 laid down officially that no BBC or ITA broadcast (other than such party political broadcasts) should discuss or make *ex parte* statements on issues to be debated in either House of Parliament within a period of 14 days before such debates take place.

[2] A European Regional Broadcasting Conference held in Copenhagen in 1948 produced a plan to minimize interference between medium and long wave broadcasting stations by allocating wavelengths to individual transmitters in such a way that stations sharing wavelengths, or using adjacent wavelengths, were so far from each other that interference with reception in their respective service areas should be negligible. The maximum power of each transmitter and the precision with which its allotted frequency must be maintained are also specified in the Plan, which came into operation on 15th March 1950.

83 per cent of the population. Government approval for the construction of further stations has been given.

External Services

The general purposes of the BBC in all its broadcasts to listeners within the Commonwealth or in other lands, is to form a link of information, culture and entertainment; to give news of world-wide importance; to show what the British nation as a whole is thinking about the news; and to reflect the British way of life.

The BBC is entirely responsible for the content of the External Service broadcasts, but the relevant Government Departments prescribe the countries to which services are to be directed and the time on the air to be allotted to each.

In its news services, the BBC has established a reputation for objectivity and integrity. Every day a hundred news bulletins are directed to listeners overseas. English by Radio lessons are a regular part of many of the transmissions in the External Services.

The External Services of the BBC include:

1. *The General Overseas Service in English* (the descendant of the original 'Empire Service', begun in 1932) which is addressed to audiences in every part of the Commonwealth, to British forces serving abroad, and to British communities wherever they may be. It also has a large audience among English-speaking people of many nationalities throughout the world. The General Overseas Service, which is on the air for twenty-one hours in every twenty-four, gives a complete programme service from news to light entertainment, and many of the programmes are taken from the domestic output.
2. *Special Services directed to the Commonwealth* in English and other languages.
3. *Services directed to foreign countries*, mainly broadcast in the languages concerned. The BBC now broadcasts in 43 languages other than English.
4. *The Transcription Service*, which records selected BBC programmes in London, drawing on the entire output of the domestic and External Services. These recordings are distributed to radio organizations all over the world for re-broadcasting locally.

Oversea Offices

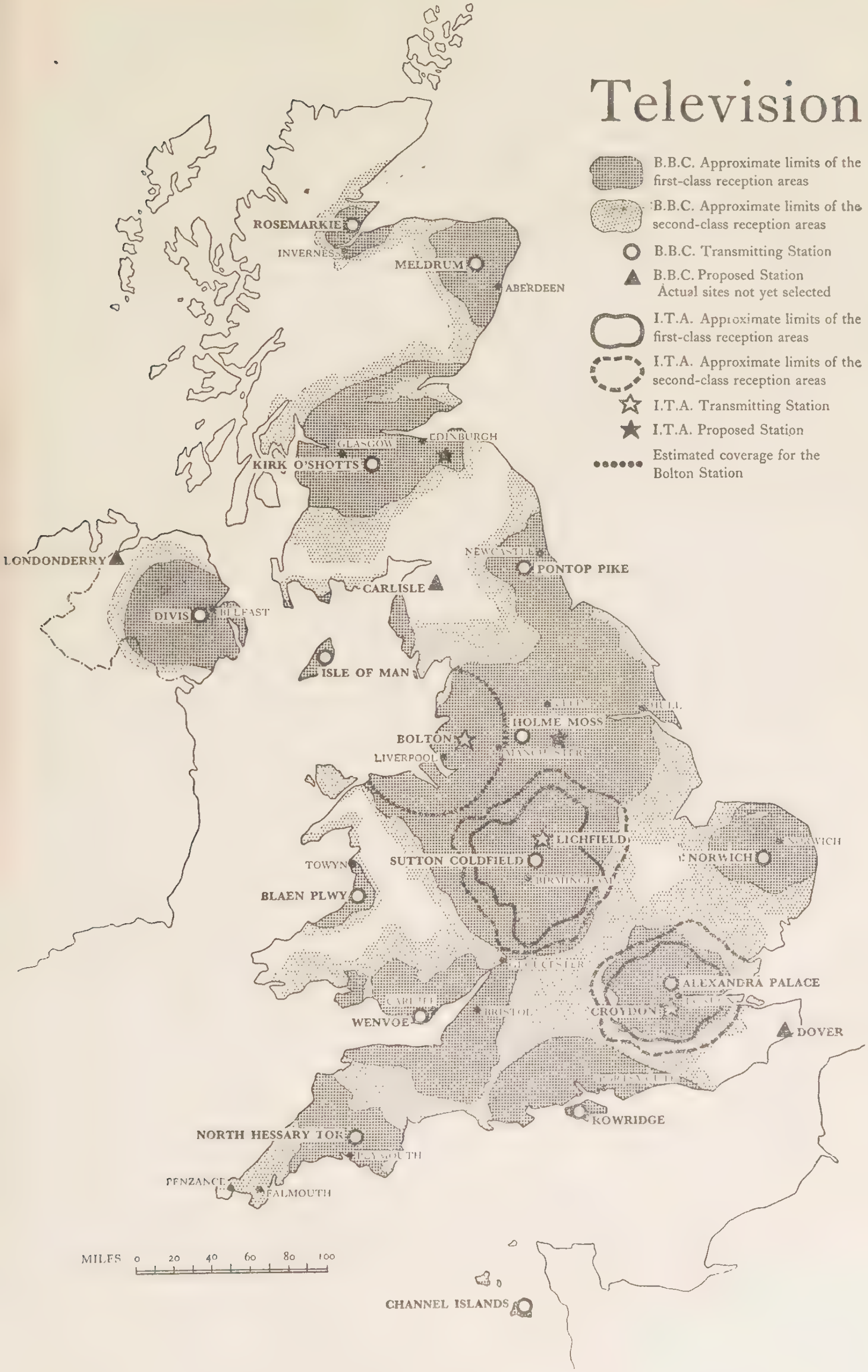
The BBC maintains oversea offices in Berlin, Bonn, Cairo, New Delhi, New York, Paris, Singapore, Sydney, Toronto and Ottawa. Their purpose is to meet the programme requirements of the Home and External Services, to encourage local stations to re-broadcast BBC transmissions and transcription recordings and to disseminate information about the BBC External Services.

Apart from the oversea offices, the BBC maintains a high-power short wave relay station for South-East Asia, at Tebrau in the Federation of Malaya.

BBC TELEVISION SERVICES

Development

Experiments in television broadcasting started in Britain in the autumn of 1929, and in November 1936 the BBC began to give from Alexandra Palace, London, the first public service of high definition television in any part of the world. By September 1939 (when the Alexandra Palace station was closed down for military reasons) the programme technique had made considerable progress and the number of receiving sets was approximately 20,000.


Television
B.B.C. Approximate limits of the first-class reception areas
B.B.C. Approximate limits of the second-class reception areas
B.B.C. Transmitting Station
B.B.C. Proposed Station Actual sites not yet selected
I.T.A. Approximate limits of the first-class reception areas
I.T.A. Approximate limits of the second-class reception areas
I.T.A. Transmitting Station
I.T.A. Proposed Station
Estimated coverage for the Bolton Station
ROSEMARKIE
INVERNESS
MELDRUM
ABERDEEN
GLASGOW
EDINBURGH
KIRK O'SHOTTS
LONDONDERRY
NEWCASTLE
PONTOP PIKE
CARLISLE
DIVIS
BELFAST
ISLE OF MAN
LEEDS
HULL
HOLME MOSS
BOLTON
MANCHESTER
LIVERPOOL
LICHFIELD
SUTTON COLDFIELD
BIRMINGHAM
NORWICH
NORWICH
TOWYN
BLAEN PLWY
GLOUCESTER
ALEXANDRA PALACE
LONDON
CROYDON
CARDIFF
WENVOE
BRISTOL
DOVER
PORTSMOUTH
ROWRIDGE
NORTH HESSARY TOR
PLYMOUTH
PENZANCE
FALMOUTH
MILES 0 20 40 60 80 100
CHANNEL ISLANDS

The Television Service was reopened in June 1946 and by December 1952 five high-power transmitting stations, capable of reaching some four-fifths of the population, were in operation: Alexandra Palace covering London and the Home Counties; Sutton Coldfield covering the Midlands; Holme Moss covering the North of England; Kirk o' Shotts covering Central Scotland; and Wenvoe covering South Wales and parts of the West of England.

The national coverage is now being extended by the building of six medium-power and seven low-power permanent stations. By the end of 1955, three of the medium-power stations were completed and, together with temporary low-power stations which were already in operation, have extended television coverage to 94 per cent of the population. This is a far higher proportion than has yet been achieved in any other country.[1]

The three medium-power stations completed before the end of 1955 are at Pontop Pike (Tyneside), Divis (Northern Ireland) and Meldrum (in the north-east of Scotland), replacing temporary transmitters in these areas. In 1956, temporary transmitters at Rowridge (Isle of Wight), North Hessary Tor (South Devon) and at Norwich will also be replaced by permanent medium-power stations. A low-power station is in operation in the Isle of Man, which will later be replaced by a permanent one of somewhat greater power, and a further low-power station came into service in the Channel Islands in September 1955. To complete the BBC's plan for 18 stations, low-power stations are to be built near Dover, Inverness, Londonderry, Carlisle and Blaen Plwy (West Wales). In addition, a new and more powerful London station, to replace Alexandra Palace, is being built on the Crystal Palace site and will incorporate the most modern transmission technique; it is scheduled to begin operation early in 1956, using a temporary mast and aerial. This programme of construction will result in BBC television coverage for 98 per cent of the population of the United Kingdom by 1957.

The BBC has put forward proposals, subject to Government approval, and provided that the necessary transmission channels can be made available, to inaugurate a second BBC television service.

The BBC is building, on a 13-acre site at Shepherds Bush in London, a set of studios and accompanying office accommodation which will, it is hoped, be the 'best television centre in the world'. The existing television studios at Lime Grove and the Television Theatre, near Shepherds Bush, are to be re-equipped with modern cameras and associated apparatus. Two film studios at Hammersmith, London, have been acquired and are being converted into television studios. In addition to studio facilities in London, the BBC is putting into effect plans for television studios in its other regions. In Bristol, the largest of the sound studios is already being used for television productions, and improvements are being made. Early in 1956 premises in Manchester and Birmingham will also be available for studio productions—in Birmingham, initially, on a 'drive in' basis, which means that equipment from the Midland outside broadcast vehicle will be unloaded and used in the studio. In Cardiff, premises are being acquired which will provide a 'drive in' studio pending the provision of permanent equipment.

Programmes

Regular television programmes are broadcast daily by the BBC between 3.0 p.m. and 11 p.m. There are intervals in each day's transmissions which limit actual viewing time to about 49 hours a week. In addition to these basic transmission hours, outside broadcasts of national occasions, public events, and sporting fixtures add to the viewing time, particularly in the summer months.

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[1] In the five years from January 1950 to December 1954, the numbers of television licences increased nearly twentyfold, and by the end of October 1955 one out of every three homes possessed a television set.

The BBC provides a daily television programme for children, and an experimental television service for schools is being planned. The first transmissions are to begin in the autumn of 1957. Local education authorities will equip enough schools with television sets to justify the inauguration of this experimental service, which, at first, will provide two or three transmissions a week.

Research

The BBC maintains a Research Department the main function of which is to solve technical problems in broadcasting, particularly those which will arise in the course of future development. The department covers the whole field of broadcasting, including such subjects as acoustics, recording, aerials, wave propagation, and the specialized problems of television. During the past few years attention has been focused on the problems of colour television; considerable progress has been made and experimental colour transmissions were introduced in the autumn of 1955. The choice of system to be used when a colour television public service is introduced rests with the Postmaster-General, who will be advised by the Television Advisory Committee. Before such a service is begun, the BBC is committed to the completion of its plan for 98 per cent coverage in black and white television, using the existing British 405-line standard.

The technical quality of the monochrome pictures now transmitted has been steadily improved as a result of the BBC's research and design activities.

Eurovision

During 1954 and 1955 a successful series of European television programme exchanges took place using, in many instances, temporary equipment to link together the countries taking part. In January 1955 the BBC ordered from the Post Office a permanent two-way television link with France of which the first section was completed by September 1955. The section consists of coaxial cables joining London with the coast at St. Margarets Bay in Kent. The next section will be a two-way radio link across the Channel, but this is unlikely to be completed before 1958. Meanwhile, the provision of a temporary two-way radio link across the Channel, installed and operated by the BBC and Radiodiffusion-Télévision Françaises, has facilitated a further series of programme exchanges which began in the autumn of 1955.

INDEPENDENT TELEVISION SERVICES

The development of the broadcasting services has from the outset been assisted by the recommendations of successive independent committees of inquiry set up by the Government, e.g., the Crawford Committee (1926) which recommended the establishment of the BBC; the Selsdon Committee (1935) which recommended the establishment of a high definition public television service to be run by the BBC; and the Beveridge Committee (1951) which made recommendations designed to guard against the evils of monopoly, but was in favour of maintaining the BBC in much its present form as 'something of which the country might be proud'. The idea of the public corporation as the most suitable administrative device for the sound broadcasting services has, in fact, hardly ever been challenged; but since the issue in May 1952 of the *Memorandum on Broadcasting* (*Cmd.* 8550) which contained Government proposals for introducing competition in television, discussions on the pros and cons of an alternative system for television services have frequently been held in Parliament, in the press and by the general public.

In the 1952 Memorandum no details were published of the terms and conditions under which competitive television would operate; and although it was stated that safeguards would be established against possible abuses and that a 'controlling body would be required for regulating the conduct of the new stations, for exercising a general oversight of the programmes and for advising on appropriate matters', a considerable body of opinion feared that the introduction of private enterprise into a sphere of activity hitherto controlled by a public corporation might lead to a debasing of entertainment standards.

On the other hand, there were many people who welcomed the idea of competition, agreeing with the Government that 'as television has great and increasing power in influencing men's minds, its control should not remain in the hands of a single authority, however excellent that authority may be'.

The proposals outlined by the Government in the *Memorandum on Television Policy* (*Cmd.* 9005), published in November 1953, were designed to reconcile these two opposing viewpoints by combining effective control with greater freedom; and, at the same time, to reduce to a minimum the financial commitments of the State. Most of these proposals were embodied in the Television Act, 1954.

THE INDEPENDENT TELEVISION AUTHORITY

The Television Act, 1954, set up the Independent Television Authority consisting of a chairman, a deputy chairman and eight ordinary members (three of whom have special responsibility for Scotland, Wales and Monmouthshire, and Northern Ireland respectively). The Authority is appointed by the Postmaster-General and is charged with the duty of providing television services additional to those provided by the BBC for a period of ten years until 30th July 1964. The Authority was established in August 1954.

The Act lays down that the programmes transmitted by the Authority are normally to be provided by programme contractors who, on the one hand, receive revenue from firms which advertise in the intervals of their programmes, and, on the other, pay rent to the Authority for the use of the transmitters which are owned and operated by it. Sponsored programmes, i.e. programmes the content of which is provided or controlled by advertisers, are not allowed. The Authority's finance is drawn from the payments made to it by the programme contractors, but advances may be made by the Postmaster-General with the consent of the Treasury for the purpose of paying for initial expenses and capital expenditure and of providing the Authority with working capital. The advances are limited to £1 million during the first year of the Authority's existence and to a total of £2 million in all during the first five years. Any advances thus made will have to be repaid by the Authority out of the money it receives from the contractors. There is also provision in the Television Act for an annual Exchequer grant of up to £750,000 to be made to the Authority.

The Act requires the Authority to ensure that the programmes do not offend against good taste or decency, that they are balanced in their subject-matter and that they maintain a high general standard of quality and due impartiality on matters of public controversy, and that news is presented with accuracy and impartiality. The Authority must arrange for committees, representative of the organizations and persons concerned with these matters, to advise it as to the principles to be followed on religious matters, on standards of advertising, and on the provision of programmes for children. In June 1955 the Authority issued a statement outlining the principles on which control of advertising standards will be exercised. This was based on the recommendations of the Advertising Advisory Committee.

Under arrangements agreed between the Postmaster-General and the Independent Television Authority, the ITA may transmit programmes for a maximum of 35 hours from Monday to Friday each week and of 15 hours for Saturdays and Sundays, with a maximum of 8 hours on weekdays and 7¾ hours on Sundays. (These limits apply also to BBC television services.)

Programme Contracting Companies

The programme contracts arranged by the ITA in 1955 were with four companies to provide the programmes for three stations: Associated TeleVision Limited, operating on Saturdays and Sundays in the London area and on Mondays to Fridays in the Midlands area; Associated-Rediffusion Limited, operating Mondays to Fridays in the London area; Granada TV Network Limited, operating Mondays to Fridays in the Lancashire area; and Associated British Cinemas (Television) Limited, operating on Saturdays and Sundays in the Midland and Lancashire areas.

The four programme contractors pay a total of approximately £1½ million a year to the ITA for the right to use its transmitters and equipment.

A common news service is provided for the four companies by Independent Television News Limited.

ITA Stations

The first regular ITA service was inaugurated in September 1955 from the Authority's London station at Beaulieu Heights, Croydon. This station serves the Greater London area with some 11 million potential viewers. Further stations are to be erected near Lichfield, Staffordshire (to serve the Midland area), between Chorley and Bolton in Lancashire, and in the Huddersfield/Sheffield area of Yorkshire. It is expected that the Midland and Lancashire stations will be in operation by the spring of 1956. A Scottish station is also planned and the ITA hopes to open about three stations a year until substantial national coverage is achieved. The Authority's stations transmit on frequencies in Band III.

XIV. THE PRESS

The British Press caters for all political views, many different levels of education and a wide range of interests. It is free from Government censorship and interference.

The British public buys more newspapers per person than any other in the world. For every 1,000 inhabitants of the United Kingdom 611 copies of daily papers are sold every day. Next comes Sweden with 490 per 1,000 inhabitants; in the United States the figure is 353. Circulation figures of individual newspapers are proportionately high. For several years the Sunday *News of the World* has had the world record newspaper circulation of about eight million copies,[1] and at least six of the daily newspapers have circulations in the millions. These high figures are largely explained by the fact that the London morning papers have 'national' circulations, i.e. they are distributed throughout the British Isles, being available on the day of publication everywhere except in a few outlying islands.

Britain is, however, less well served in the size of newspapers because of the shortage of newsprint due to the fact that most of it has to be imported and so involves the expenditure of foreign exchange, especially dollars. This has meant restriction of supplies in recent years when the balance of payments has been under pressure. But there has been some improvement: from an average of four to six pages in the war and immediate post-war period, daily papers have risen to an average of 8 to 12 pages. Supplies of newsprint rose from about 650,000 tons in 1953 to 720,000 tons in 1954, and are estimated at 850,000 tons for 1955. In March 1956 Government control on deliveries of newsprint to newspapers and other users is to end.

Prices of daily newspapers vary from 1½d. for some of the popular morning papers to 4d. for *The Times*.

There are over 150 daily and Sunday newspapers: 15 London mornings, 3 London evenings, 10 London Sundays; 24 mornings, 64 evenings and 4 Sundays in England outside London; 1 morning and 3 evenings in Wales; 8 mornings, 9 evenings and 3 Sundays in Scotland; 3 mornings and 1 evening in Northern Ireland; 1 Isle of Man daily and 3 Channel Islands evenings.

There are about 1,350 weekly papers which are published in Greater London and almost every sizable town in the rest of the country. These papers deal mainly with news of interest to the region where they are sold. There are also the sporting papers, papers in foreign languages for groups of nationals of other lands resident in Britain, religious papers, and the junior, or children's, papers.

In 1947 a Royal Commission on the Press was appointed to inquire into the finance, control, management and ownership of the British Press. Its report was issued in June 1949 (*Cmd.* 7700) and has been recognized as a comprehensive and authoritative analysis. Among other recommendations it suggested the establishment of a General Council of the Press and this was set up in 1953 (see p. 414).

The Commission found that the British Press 'is completely independent of outside financial interests and that its policy is the policy of those that conduct it'; there was evidence that the direct influence of advertisers on policy was 'negligible'. After studying management and ownership, the Commission concluded that 'there is nothing approaching monopoly in the press as a whole, or . . . in any class of newspaper'.

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[1] The only higher circulation is that of the BBC's weekly *Radio Times* (8,200,208).

TABLE 40

‘NATIONAL’ NEWSPAPERS (AND LONDON EVENINGS)

Title	General Political Tendency	Owner or Controller	Circulation average January–June (inc.) 1955
DAILIES			
The Times	Independent	Times Publishing Co. Ltd.	221,972
Daily Telegraph	Conservative	Lord Camrose and members of his family	1,056,275
Manchester Guardian	Liberal	The Scott Trust	156,154
Daily Express	Independent Conservative. Stresses importance of British Empire.	Beaverbrook Newspapers Ltd.	4,036,137
Daily Mail	Conservative	Associated Newspapers Ltd.	2,068,167
Daily Herald	Labour	Daily Herald Ltd. 51% of shares owned by Odhams Press Ltd., 49% by Trades Union Congress	1,759,098
News Chronicle	Liberal	Daily News Ltd. Two-thirds of trustees members of Cadbury family	1,252,778
Daily Worker	Communist	People’s Press Printing Society Ltd. Shares owned by large number of small shareholders. Editorial executives members of Communist Party	83,422
Daily Mirror	Left-wing	Daily Mirror Newspapers Ltd.	4,725,122
Daily Sketch	Conservative	Associated Newspapers Ltd.	950,286
LONDON EVENINGS			
Evening News	As for *Daily Mail*	As for *Daily Mail*	1,312,723
Star	As for *News Chronicle*	As for *News Chronicle*	1,010,809
Evening Standard	As for *Daily Express*	As for *Daily Express*	710,776
SUNDAYS			
Observer	Independent	The Observer Ltd. All shares owned by The Observer Trust	564,307

Continued overleaf

TABLE 40 (*contd.*)

Title	General Political Tendency	Owner or Controller	Circulation average January–June (inc.) 1955
SUNDAYS (*contd.*)			
Sunday Times	Conservative	Kemsley Newspapers Ltd.	606,346
News of the World	General political sympathies Conservative	News of the World Ltd.	7,971,020
People	Independent	Odhams Press Ltd.	5,075,351
Sunday Express	As for *Daily Express*	As for *Daily Express*	3,235,178
Sunday Dispatch	As for *Daily Mail*	As for *Daily Mail*	2,549,228
Reynolds News	Supports the Co-operative Movement and the Labour Party	Co-operative Press Ltd. Shareholders, co-operative societies	579,180
Sunday Chronicle[1]	Conservative	Kemsley Newspapers Ltd.	830,631
Empire News[1]	Conservative	Kemsley Newspapers Ltd.	2,049,880
Sunday Pictorial	As for *Daily Mirror*	Sunday Pictorial Newspapers Ltd.	5,539,442
Sunday Graphic	Conservative	Kemsley Newspapers Ltd.	1,220,056
Women's Sunday Mirror	As for *Daily Mirror*	Pictorial Publications Ltd.	1,093,513 (started 30th January 1955)

Ownership

As Table 40 shows, several companies or groups own a number of newspapers. The five largest press groups are: Associated Newspapers Limited, which, with three London papers, owns through subsidiary companies linked under the management of Northcliffe Newspapers Group Limited a total of eleven dailies (with an interest in two more), nine weeklies and one Sunday; Kemsley Newspapers Limited, which owns nine dailies, five weeklies and four Sundays and has interests in eight other newspapers[1]; Westminster Press Group which controls thirteen dailies, 33 weeklies and one Sunday; Provincial Newspapers Limited, which owns four dailies and twelve weeklies; and the Harmsworth Group, which runs four dailies and eleven weeklies in the West country.

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[1] These figures take account of the changes in newspaper control which occurred in November 1955 when the *Daily Mirror* and *Sunday Pictorial* companies acquired from Kemsley Newspapers the control of the Scottish *Daily Record*, *Sunday Mail* and *Glasgow Evening News*, and signed a ten-year contract for the use of Kemsley printing plant in Manchester for northern editions of the *Daily Mirror* and *Sunday Pictorial*. The title, goodwill and copyrights of the *Daily Dispatch* (Manchester) were bought from Kemsley Newspapers by Daily News Limited, owners of the *News Chronicle*. The *Sunday Chronicle* was amalgamated with the Sunday *Empire News*.

Groups also exist in the periodical press; among the best known are the Amalgamated Press, which publishes 70 trade, technical, women's and children's papers; Odhams Press, which (in addition to two newspapers) publishes about 25 periodicals, including some with very high circulations; George Newnes and C. Arthur Pearson Limited, which publishes 58 periodicals besides technical books and papers for many branches of industry; Hulton Press Limited, which publishes fewer titles but whose magazines have very large circulations; and the Thomson-Leng group, the largest publishers of magazines in Scotland.

Certain newspapers and periodicals are controlled by trustees whose aim is to preserve the character and traditions of the paper and prevent control from falling into unsuitable hands. Various forms of trust govern the direction of *The Times*, *Manchester Guardian*, *News Chronicle* and *Star*, *Observer*, *Economist* and *Spectator*.

The 'National' Press

Nine morning papers with headquarters in London, and one in Manchester, are 'national' in the sense of circulating throughout the British Isles, and there are 11 'national' Sunday papers (see Table 40). In addition, the leading Scottish papers (see below) circulate widely, and certain specialized daily papers also have a circulation not limited by region, e.g., *The Financial Times* (circulation 78,953). The three London evening papers each have affiliations with one of the national dailies, but they draw their readership very largely from people living within fifty miles of London.

Provincial Newspapers

The provincial newspapers, numbering nearly a hundred morning or evening dailies and Sunday papers and about 1,100 weeklies provide the general and local news expected by readers whose daily life and interests are known to and shared by the newspaper staff. Some 60 provincial papers still in existence were founded before 1800; the oldest being *Berrow's Worcester Journal*, dating back to 1709. With a few exceptions (e.g., *Yorkshire Post*, *Newcastle Journal*, *Sheffield Telegraph*, *Western Mail*) they reflect no definite political tendency. The total circulation of the dailies is estimated at about 9 million and of the weeklies at about 12 million. The provincial newspaper, often read far more thoroughly than the national daily, is a valuable medium for national and local advertising.

London suburban weeklies, of which there are about 60, are closer to the provincial weeklies than to the national dailies in readership and appeal.

Ownership of the provincial press is varied: it includes individual owners, two or more partner proprietors, local printing and publishing firms, newspaper companies owning between one and half a dozen papers, or press groups controlling a chain of newspapers in different parts of the country.

Scotland

Scotland has eight morning, nine evening and three Sunday newspapers. *The Glasgow Herald*, founded in 1783, and *The Scotsman*, founded in 1817 and published in Edinburgh, are among the organs influencing serious opinion in Great Britain. The circulation of the former is 76,379 and of the latter 56,091 (average figures January–June 1955). Other morning papers are *The Scottish Daily Express*, the *Scottish Daily Mail*, *The Daily Record and Mail*, *The Bulletin* (a picture paper), *The Courier and Advertiser*, and *The Press and Journal*. Glasgow, Edinburgh, Dundee and Aberdeen are the centres of publication. Evening papers include the *Edinburgh Evening News* and *Evening Dispatch*, Glasgow's *Evening Times*, *Evening News*, and *Evening Citizen*, Dundee's *Evening Telegraph and Post*, Aberdeen's

Evening Express, and the *Paisley Daily Press* and the *Greenock Telegraph.* The Sunday papers are the *Sunday Mail*, *Scottish Sunday Express*, and the *Sunday Post.*

Among the weekly papers are the *Weekly Scotsman*, the *Aberdeen Journal*, and *The People's Journal*, which also circulate outside Scotland; in all there are about 120 weekly papers published in Scottish towns.

Northern Ireland

Northern Ireland has three morning papers and one evening paper, all printed in Belfast. In addition to three newspapers in Londonderry which are each published three times a week, there are 48 weekly papers. The majority are published by individual companies and all the counties have good coverage of local papers. There are no Sunday newspapers.

Wales

One daily morning newspaper, the *Western Mail*, a Kemsley newspaper, is printed and published in Cardiff; it has a circulation of 84,254, mainly in the southern half of Wales. In North Wales, the *Liverpool Daily Post* gives wide coverage to events in the area. Evening papers published in Wales are the *South Wales Echo*, Cardiff, the *South Wales Argus*, Newport, and the *South Wales Evening Post*, Swansea. North Wales is served by the *Liverpool Echo* and *Liverpool Express* and to a smaller extent by evening papers published in Manchester, the *Manchester Evening News* and the *Manchester Evening Chronicle.*

Since October 1954 a special Welsh edition of the Sunday *Empire News* has been printed in Cardiff. Other national Sunday papers carry columns of news on Welsh affairs.

The weekly press includes 48 weekly papers in English, some of them carrying articles in Welsh; nine bilingual papers; and 12 papers in Welsh, of which five are denominational papers.

Channel Islands and Isle of Man

The Channel Islands have three evening papers, one twice-weekly and two weeklies. The Isle of Man has one daily of which a special weekly edition comes out on Saturday, and four other weeklies.

Periodicals

Weekly, monthly and quarterly journals cover an enormous field. A salient feature of the last twenty-five years has been the development of periodicals with a mass appeal on the one hand, and the growth of the trade press on the other. There are over 3,500 periodical publications: general magazines with circulations ranging up to over a million; women's magazines, which also have large circulations; numerous publications for children; religious periodicals of various denominations; magazines dealing with sports, hobbies, fiction and humour; periodicals specializing in various subjects such as politics, finance and economics, science, the professions, the arts; the large body of trade and technical publications whose circulations are not confined to the United Kingdom; and lastly, the journals of learned societies, trade unions, business houses, regiments, universities, colleges, schools, and other associations.

At the high circulation end of the scale are the popular periodicals, such as *Illustrated*, *Picture Post*, *John Bull*, *Tit-Bits*, *Reveille for the Week End*, *Midweek Reveille*, and *Week-End Mail*; several of these have circulations of a million or more. Three women's weeklies (*Woman*, *Woman's Own* and *Woman's Weekly*) and one women's monthly (*Woman and Home*) also have circulations in the millions.

Of considerable influence, although their circulations are only in the tens of thousands, are the weeklies dealing with political, social and economic affairs: *The Economist*, which covers topics of the day from a far wider angle than its title would indicate and is politically independent; *The New Statesman and Nation*, a review of politics, literature and the arts with an independent socialist political tendency; *The Spectator*, which covers much the same subjects and is non-party; *Time and Tide*, which has a right-wing tendency; *Tribune*, with a left-wing but strongly anti-communist bias; and *Truth*, which is extreme right wing in its political outlook. Other papers whose circulations are in the tens of thousands are the illustrated weeklies such as *The Illustrated London News*, *The Sphere*, *The Field*, and *Country Life*, while *Punch* is the leading humour periodical. The readership of all these weeklies is greater than is apparent from their circulation figures, since they are widely read in libraries, clubs and other institutions.

Monthly and quarterly journals, generally speaking, appeal to the more serious type of reader, particularly the literary and political journals and those specializing in international and Commonwealth affairs.

Four monthly illustrated periodicals are published in Scotland: *The Scottish Field*, *Scotland's Magazine*, *The Scots Magazine* (founded 1779) and *Scotland*; and two weeklies devoted to farming interests, *The Farming News* and *The Scottish Farmer*. Among literary journals, probably the most famous are *Chambers's* and *Blackwood's*, both published in Edinburgh.

Popular magazines are numerous: the Thomson-Leng group of Dundee alone distribute about 10 million copies of weeklies in the British Isles and abroad.

In Northern Ireland, weekly, monthly and quarterly publications cover farming, the linen industry, building, motoring and politics.

News Agencies

There are three principal British news agencies:

Reuters Ltd., a world agency with offices in many countries, which distributes foreign and Commonwealth news to British newspapers and foreign and British news to over 3,000 papers outside Britain. It is owned by the British Press and three Commonwealth news agencies. All profits are used to develop the service.

Press Association Ltd., which distributes home news. It is owned by British provincial newspapers. All profits are used to develop the service.

Exchange Telegraph Company Ltd., a public company which distributes home and foreign news, mainly to British papers.

Two other agencies supply a general service of oversea news:

Associated Press, which is a branch of the Associated Press of America.

British United Press, which is a Canadian subsidiary of the United Press of America.

There are besides some 60 United Kingdom, Commonwealth and foreign agencies and news services with offices in London, specializing in some aspects of newspaper and periodical requirements.

Training for Journalism

Until recently, and this therefore applies to most newspapermen working today, journalists were, broadly, of two classes: those who entered newspaper offices on leaving school and worked their way up, learning by experience; and university graduates who held some of the specialized posts, such as correspondents abroad or on special subjects, leader-writers and editorial office staff. The second class has always been comparatively small. The Kemsley Newspaper Group made provision for combining instruction with the practice of journalism, and courses in journalism were organized by the London Polytechnic, and by King's College, London (until the outbreak of war in 1939).

In 1952 an agreement was reached for a more comprehensive plan for the training and education of junior journalists in newspaper offices. A National Advisory Council, on which are representatives of the principal press organizations and unions, was set up to administer the scheme, which is based on the voluntary co-operation of newspaper offices. Examinations are taken at two levels, the higher obtainable only after three years of active journalism.

Press Institutions

Both employers and employees in the industry are well organized. On the employers' side, the most important organizations are the Newspaper Proprietors' Association, whose members are proprietors of London (national) daily and Sunday newspapers, the Newspaper Society, whose members are proprietors of provincial daily and weekly newspapers in England, Wales and Northern Ireland, the Scottish Daily Newspaper Society, the Scottish Newspaper Proprietors' Association, and the Periodical Proprietors' Association. On the employees' side there are the National Union of Journalists (NUJ) and the Institute of Journalists (IoJ). The National Union of Journalists has a membership of about 13,180 working journalists; editors who have powers of dismissal are excluded. The Institute of Journalists, which has a membership of some 2,802 ~~12,800~~, admits editors. Free-lance journalists (who are not on the staff of any one paper or group of papers but send contributions to any journal) may belong to the NUJ or IoJ. The aims of these organizations are the improvement of wages and working conditions of journalists and of the status of the Press.

The aims of the Guild of British Newspaper Editors are, *inter alia*, to sustain the dignity of editorship, to raise and safeguard the professional status of editors, to protect the rights and freedom of the Press, and to improve the education and training of junior journalists.

The largest of other organizations directly connected with the Press is the National Society of Operative Printers and Assistants (NATSOPA), which has a varied membership connected with the production of newspapers and periodicals; in addition to the groups indicated by the title of the society, its membership includes clerical workers, dispatch hands and similar personnel. The largest of the Printers' Unions concerned is the London Typographical Society.

The General Council of the Press

Following the recommendations of the Royal Commission on the Press, a Press Council representative of the various Press organizations was set up in 1953. Its aims are:

- to preserve the established freedom of the British Press;
- to maintain the character of the British Press in accordance with the highest professional and commercial standards;
- to keep under review any developments likely to restrict the supply of information of public interest and importance;
- to promote and encourage methods of recruitment, education and training of journalists;
- to promote a proper functional relation among all sections of the profession;

to promote technical and other research;

to study developments in the British Press which may tend towards greater concentration or monopoly;

to publish periodical reports recording its own work and reviewing from time to time the various developments in the British Press and the factors affecting them.

The Council consists of eight editorial representatives, four nominees of the National Union of Journalists, three nominees of the Institute of Journalists, and ten managerial representatives.

The Press and the Law

The Press in Britain has the same freedom as the individual to do and say what it likes provided it does not transgress the law; and in general it enjoys very great liberty of comment on matters of public interest. There are no special press laws (other than those relating to such matters as the registration of newspapers), but requirements which affect the Press occur in a variety of Acts of Parliament; for example, the admission of the Press to meetings of local authorities is regulated by the Local Government Acts and restrictions on the reporting of domestic proceedings and proceedings against juveniles are imposed by legislation governing procedure in the law courts.

In particular, the Press must comply with the copyright laws and with the laws against the publication of matters protected by the Official Secrets Acts, with the laws of seditious libel, blasphemous and obscene libel, and defamation, with the laws for the protection of children from publications which might do them moral harm,[1] and against fraudulent advertising, against breach of Parliamentary privilege, and against 'contempt of court'—publication of anything affecting a case before the courts which might tend to influence the result of the trial, or of comment on court proceedings which might tend to prejudice their reputation for justice.

Public prosecutions of the Press for offences against these laws are nowadays rare; the majority of such legal actions as do take place are brought by private individuals seeking to protect their own interests, for example against libel. In any legal action the editor, proprietor, publisher, printer and distributor of the newspaper, as well as the author of the article, can all be held responsible.

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[1] Children and Young Persons (Harmful Publications) Act, 1955.

APPENDIX

BRITISH CURRENCY, WEIGHTS AND MEASURES, AND CONVERSION TABLES

BRITISH CURRENCY

4 farthings = 1 penny (1d.)
12 pence = 1 shilling (1s.)
2 shillings = 1 florin
2 shillings and 6 pence = 1 half-crown

5 shillings = 1 crown
20 shillings = 1 pound (£1)
21 shillings = 1 guinea

Coins in common use are: farthing, half-penny, penny, threepenny piece, sixpence, shilling, two shilling piece (florin), and half-crown.

Bank of England *notes* are issued in denominations of 10s., £1 and £5. Notes of £1 and 10s. are legal tender in the United Kingdom for the payment of any amount. Notes of £5 are legal tender in England and Wales only, and only for a sum of £5 or over.

£1 = 2·80 United States dollars.

BRITISH WEIGHTS AND MEASURES AND THEIR METRIC EQUIVALENTS

Measures of Length

Metric equivalent
1 inch = 2·54 centimetres
12 inches = 1 foot = 30·48 centimetres
3 feet = 1 yard = ·914 metre
1,760 yards = 1 mile = 1·609 kilometres

Measures of Area

Metric equivalent
1 square inch = 6·451 square centimetres
144 square inches = 1 square foot = 929·03 square centimetres
9 square feet = 1 square yard = ·836 square metre
4,840 square yards = 1 acre = 0·404 hectare
640 acres = 1 square mile = 2·589 square kilometres

Measures of Capacity

1 gill = ·142 litre
4 gills = 1 pint = ·568 litre
2 pints = 1 quart = 1·136 litres
4 quarts = 1 gallon = 4·546 litres

2 gallons = 1 peck = 9·092 litres
4 pecks = 1 bushel = 36·37 litres
8 bushels = 1 quarter = 2·099 hectolitres

Measures of Weight (Avoirdupois)

1 ounce (oz.) = 28·350 grams
16 oz. = 1 pound (lb.) = 0·454 kilogram
14 lb. = 1 stone (st.) = 6·35 kilograms
28 lb. = 1 quarter (qtr.) = 12·7 kilograms
4 quarters (112 lb.) = 1 hundredweight (cwt.) = 50·8 kilograms
20 cwt. (2,240 lb.) = 1 long ton = 1·016 metric tons
2,000 lb. = 1 short ton = 0·907 metric ton

DOUBLE CONVERSION TABLES FOR WEIGHTS AND MEASURES

(Note: the central figures represent either of the two columns beside them, as the case may be—e.g., 1 centimetre = 0·394 inch, and 1 inch = 2·540 centimetres.)

Centimetres		Inches	Metres		Yards	Kilometres		Miles	Hectares		Acres
2·540	1	0·394	0·914	1	1·094	1·609	1	0·621	0·404	1	2·471
5·080	2	0·787	1·829	2	2·187	3·219	2	1·243	0·809	2	4·942
7·620	3	1·181	2·743	3	3·281	4·828	3	1·864	1·214	3	7·413
10·160	4	1·575	3·658	4	4·374	6·437	4	2·485	1·619	4	9·884
12·700	5	1·969	4·572	5	5·468	8·047	5	3·107	2·023	5	12·355
15·240	6	2·362	5·486	6	6·562	9·656	6	3·728	2·428	6	14·826
17·780	7	2·756	6·401	7	7·655	11·266	7	4·350	2·833	7	17·298
20·320	8	3·150	7·315	8	8·749	12·875	8	4·971	3·237	8	19·769
22·860	9	3·543	8·230	9	9·843	14·484	9	5·592	3·642	9	22·240
25·400	10	3·937	9·144	10	10·936	16·094	10	6·214	4·047	10	24·711

Kilograms		Av. Pounds	Litres		Pints	Litres		Gallons	Hectolitres per Hectare		English Bushels per Acre
0·454	1	2·205	0·568	1	1·760	4·546	1	0·220	0·898	1	1·113
0·907	2	4·409	1·136	2	3·520	9·092	2	0·440	1·796	2	2·226
1·361	3	6·614	1·705	3	5·279	13·638	3	0·660	2·695	3	3·340
1·814	4	8·818	2·273	4	7·039	18·184	4	0·880	3·593	4	4·453
2·268	5	11·023	2·841	5	8·799	22·730	5	1·100	4·491	5	5·566
2·722	6	13·228	3·409	6	10·559	27·276	6	1·320	5·389	6	6·679
3·175	7	15·432	3·978	7	12·319	31·822	7	1·540	6·287	7	7·793
3·629	8	17·637	4·546	8	14·078	36·368	8	1·760	7·186	8	8·906
4·082	9	19·842	5·114	9	15·838	40·914	9	1·980	8·084	9	10·019
4·536	10	22·046	5·682	10	17·598	45·460	10	2·200	8·982	10	11·132

THERMOMETRICAL TABLE

	Fahrenheit	*Centigrade*	*Réaumur*
Water boils	212°	100°	80°
Water freezes	32°	0°	0°
Blood heat	98·4°	36·9°	29·5°

To convert:

°Fahrenheit into °Centigrade: subtract 32, then multiply by $^{5}/_{9}$.
°Centigrade into °Fahrenheit: multiply by $^{9}/_{5}$, then add 32.
°Fahrenheit into °Réaumur: subtract 32, then multiply by $^{4}/_{9}$.
°Centigrade into °Réaumur: multiply by $^{4}/_{5}$.

BIBLIOGRAPHY

This bibliography is in no sense comprehensive: it is only intended to be a short guide to further reading on the subjects covered in this Handbook.

Readers in the United Kingdom are asked to remember that the Central Office of Information reference documents listed as free of charge are not available in this country except for visitors from overseas. These documents are, however, available at United Kingdom Information Offices overseas, except in the United States where equivalent free material can be supplied by British Information Services, 30 Rockefeller Plaza, New York 20, N.Y.

Certain reference pamphlets produced by the Central Office of Information can be purchased from Her Majesty's Stationery Office. These pamphlets are listed with their respective prices; they are free of charge overseas.

Acts of Parliament referred to in the text can be obtained at varying prices from H.M. Stationery Office and its Agents overseas (Postage extra, as on all H.M.S.O. publications if ordered direct).

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The British Parliament	Reference Pamphlet RF.P.2661 *COI*	1953	free	
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Bridges, *Sir* Edward. Treasury Control	*Athlone Press*	1950	2	0
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BURTON, J. H. Local Rates *Stevens*	1950	4	0
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Warren, J. H. The Local Government Service	*Allen & Unwin*	1952	18	0
———The English Local Government System. 3rd edn	*Allen & Unwin*	1953	12	6
Annual Report Ministry of Housing and Local Government For 1954 Cmd 9559	*HMSO*	1955	7	0
Local Government in Britain COI Reference Pamphlet RF.P.2698	*HMSO*	1955	1	9
Notes on the Work of the County Council and its Principal Officers and Departments Reference Papers R.1856, R.1860 and R.1904	*COI*	1949–50	free	

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Denning, *Sir* Alfred. The Changing Law	*Stevens*	1953	10	0
———Freedom under the Law	*Stevens*	1949	10	0
Eddy, J. P. The Justices' Handbook: A Guide to Law, Evidence and Procedure in Magistrates' Courts. 3rd edn	*Stevens*	1953	18	0
Giles, F. T. The Criminal Law	*Penguin Books*	1954	2	6
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Gloag, W. M. *and* Henderson, A. D. Introduction to the Laws of Scotland. 5th edn	*William Green*	1952	63	0
Hanbury, H. G. English Courts of Law. 2nd edn	*Oxford University Press*	1953	6	0
Jackson, R. M. The Machinery of Justice in England. 2nd edn	*Cambridge University Press*	1953	30	0
James, Philip S. Introduction to English Law. 2nd edn	*Butterworth*	1953	15	0
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Tillett, N. R. The Law and the People	*Harrap*	1950	8	6
Criminal Statistics for England and Wales *Annual* For 1954 Cmd 9574	*HMSO*	1955	6	0
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Fox, Lionel W. English Prison and Borstal Systems	*Routledge*	1952	30	0
Fry, Margery. Arms of the Law	*Gollancz*	1951	8	6
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Commissioners of Prisons For 1954 Cmd 9547	*HMSO*	1955	6	0
Prisons in Scotland For 1954 Cmd 9444	*HMSO*	1955	1	9
Prediction Methods in relation to Borstal Training, by Dr. Hermann Mannheim *and* Leslie T. Wilkins	*HMSO*	1955	17	6
Prisons and Borstals. rev. edn	*HMSO*	1954	3	6
The Probation Service in Scotland	*HMSO*	1955	1	3
The Probation Service, Its Objects and Its Organisation. rev. edn	*HMSO*	1952	1	0
Report of the Committee on Discharged Prisoners' Aid Societies Cmd 8879	*HMSO*	1953	1	9
Report of a Committee to Review Punishments in Prisons, Borstal Institutions, Approved Schools and Remand Homes				
Parts I and II. Prisons and Borstal Institutions Cmd 8256	*HMSO*	1951	3	6
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Report of the Royal Commission on Capital Punishment 1949–53 Cmd 8932	*HMSO*	1953	12	6
Seventh Report on the Work of the Children's Department of the Home Office	*HMSO*	1955	6	0

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Howard, George. Guardians of the Queen's Peace: The Development and Work of Britain's Police	*Odhams*	1953	15	0
Martienssen, Anthony. Crime and the Police[1]	*Secker & Warburg*	1951	10	6
Reith, Charles. A Short History of the British Police	*Oxford University Press*	1948		
Scott, *Sir* Harold. Scotland Yard	*André Deutsch*	1954	16	0
Thomas, T. Lewis. Police Administration	*Police Review Publishing Co.*	1952	3	6
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H.M. Inspector of Constabulary, Scotland	For 1954 Cmd 9493 *HMSO*	1955		6
H.M. Inspectors of Constabulary (Counties and Boroughs in England and Wales)	For 1953–54 *HMSO*	1955	1	3
The Police Service in Britain	Reference Pamphlet R.F.P. 2695 *COI*	1953	free	

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Eyre, Frank *and* Hadfield, E. C. R. The Fire Service To-day. 2nd edn	*Oxford University Press*	1953	9	6
Annual Reports				
Fire Research Board	For 1954 *HMSO*	1955	3	0
H.M. Chief Inspector of Fire Services (England and Wales)	For 1954 Cmd 9568 *HMSO*	1955		9
H.M. Inspector of Fire Services for Scotland	For 1954 Cmd 9440 *HMSO*	1955		9
Fire Services. Report of Select Committee on Estimates, Session 1953–54	*HMSO*	1954	8	0
Fire Services in Britain	Reference Paper R.2915 *COI*	1955	free	

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Brassey's Annual: The Armed Forces Year Book 1955, edited by Rear-Admiral H. G. Thursfield	*Clowes*	1955	63	0
Jane's All the World's Aircraft 1955–56, edited by Leonard Bridgman	*Sampson Low*	1955	84	0
Jane's Fighting Ships 1955–56, edited by Raymond Blackman	*Sampson Low*	1955	84	0
Kemp, *Lt.-Cdr.* P. K. Fleet Air Arm	*Jenkins*	1954	16	0
Lewis, M. The Navy of Britain	*Allen & Unwin*	1948	30	0
Lipscomb, *Cdr.* F. W. The British Submarine	*Black*	1954	25	0
Sheppard, E. W. A Short History of the British Army. 4th edn	*Constable*	1950	30	0
Annual Estimates for the Services				
Air Estimates 1955–56	*HMSO*	1955	8	0
Memorandum by the Secretary of State for Air	Cmd 9397 *HMSO*	1955		6
Army Estimates 1955–56	*HMSO*	1955	8	0
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Navy Estimates 1955–56	*HMSO*	1955	10	6
Statement of the First Lord of the Admiralty	Cmd 9396 *HMSO*	1955		9
Ministry of Defence Estimate *Annual* 1955–56	*HMSO*	1955		9
Statement on Defence *Annual* 1955	Cmd 9391 *HMSO*	1955	1	0
Central Organisation for Defence	Cmd 6923 *HMSO*	1946		6
Civil Defence Manual of Basic Training [*series of pamphlets*]	*HMSO*	1949 to 1953	1 to 1	0 9

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National Service	Cmd 9608 *HMSO*	1955		6
Supply of Military Aircraft	Cmd 9388 *HMSO*	1955		6
British Aircraft: Progress and Achievement	*COI*	1955	free	

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CAIRNCROSS, A. K. *Editor.* The Scottish Economy: A Statistical Account of Scottish Life by Members of the Staff of Glasgow University	*Cambridge University Press*	1954	30	0
CARTER, C. F. *and* ROY, A. D. British Economic Statistics	*Cambridge University Press*	1954	21	0
CLAPHAM, *Sir* JOHN. A Concise Economic History of Britain: From Earliest Times to 1750	*Cambridge University Press*	1949	12	6
———An Economic History of Modern Britain 3 vols	*Cambridge University Press*	1938	135	0
COURT, W. H. B. A Concise Economic History of Britain from 1750 to Recent Times	*Cambridge University Press*	1954	21	0
CROSLAND, C. A. R. Britain's Economic Problems	*Cape*	1953	12	6
JONES, G. P. *and* POOL, A. G. A Hundred Years of Economic Development in Great Britain 1840–1940. 2nd edn	*Duckworth*	1948	21	0
LEWIS, W. ARTHUR. Economic Survey 1919–1939	*Allen & Unwin*	1953	15	0
ROBERTSON, *Sir* DENNIS. Britain in the World Economy	*Allen & Unwin*	1954	7	6
SEERS, DUDLEY. The Levelling of Incomes since 1938	*Blackwell*	1951	5	0
WORSWICK, G. D. N. *and others.* The British Economy, 1945–50	*Oxford University Press*	1952	35	0
Annual Abstract of Statistics				
No. 88, 1938–50	*HMSO*	1954	21	0
No. 91, 1954	*HMSO*	1954	21	0
No. 92, 1955	*HMSO*	1955	21	0
Economic Survey *Annual from* 1947 For 1955	Cmd 9412 *HMSO*	1955	1	6
National Income and Expenditure of the United Kingdom				
1938–46	Cmd 7099 *HMSO*	1947	1	0
1955 (prepared by the Central Statistical Office)	*HMSO*	1955	6	0
Recovery Record: The Story of Marshall Aid in Britain	*HMSO*	1951	2	6
Digest of Scottish Statistics *Twice yearly from April* 1953	*HMSO*		4	0
Digest of Statistics: Northern Ireland *Twice yearly from March* 1954	Belfast, *HMSO*		5	0
Digest of Welsh Statistics *Annual from* 1954	*HMSO*		6	0
Economic Trends. *Monthly from November* 1953	*HMSO*		2	0
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Relaxations of Controls	Reference Paper R.2857 *COI*	1954	free	

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ALLEN, G. C. British Industries and their Organization. 3rd edn	*Longmans*	1951	17	6

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British Productivity Council. The British Productivity Council: Policy and Programme	*BPC*	1953		6
————Progress Report 1953–54	*BPC*	1954	1	0
————Policy and Progress 1954–55	*BPC*	1955	1	0
————Better Ways: Nineteen Paths to Higher Production	*BPC*	1955	2	6
Chester, D. N. The Nationalised Industries: An Analysis of the Statutory Provisions. 2nd edn For the Royal Institute of Public Administration,	*Allen & Unwin*	1951	7	6
Goodman, Edward. Forms of Public Control and Ownership	*Christophers*	1951	8	6
Houldsworth, *Sir* Hubert *and others.* Efficiency in the Nationalised Industries For the Royal Institute of Public Administration,	*Allen & Unwin*	1952		
Hutton, Graham *and others.* We Too Can Prosper: The Promise of Productivity	*Allen & Unwin*	1953	12	0
Oakley, C. A. *Editor.* Scottish Industry: An account of what Scotland makes and where she makes it	*Scottish Council*	1953	25	0
Political and Economic Planning. Government and Industry: A Survey of the Relations between Government and Privately-Owned Industry	*PEP*	1952	21	0
Robson, W. A. Problems of Nationalized Industry	*Allen & Unwin*	1952	25	0
Room to Expand: Facilities which the Development Areas Offer to Manufacturers	*Board of Trade*	1955	free	
Annual Report Board of Trade on the Monopolies and Restrictive Practices Acts, 1948 and 1953	For 1954 *HMSO*	1955		9
Distribution of Industry	Cmd 7540 *HMSO*	1948	1	9
Report of the Monopolies and Restrictive Practices Commission. Collective Discrimination: A Report on Exclusive Dealing, Collective Boycotts, Aggregated Rebates and Other Discriminatory Trade Practices	Cmd 9504 *HMSO*	1955	3	6
Report on the Census of Production for 1950				
Introductory Notes	*HMSO*	1953	1	0
12 Volumes	*HMSO*	1953	1 to 2	6 0
Reports from Select Committee on Nationalised Industries				
Session 1951–52	*HMSO*	1952	6	6
Session 1952–53	*HMSO*	1953	5	6
Special Report	*HMSO*	1955	2	6
Industry and Employment in Scotland *Annual*	For 1954 Cmd 9410 *HMSO*	1955	2	6
Industrial Development in Scotland	Reference Paper R.2531 *COI*	1953	free	
Nationalized Industries in Britain	Reference Paper R.3184 *COI*	1955	free	
Productivity in the United Kingdom [*under revision*]	Reference Paper R.2205 *COI*	1951	free	

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United Kingdom Development Areas	Reference Paper R.2692 *COI*	1953	free	
United Kingdom Monopolies Commission [*under revision*]	Reference Paper R.2545 *COI*	1953	free	
Supplement	Reference Paper R.2807 *COI*	1954	free	
Agriculture and Food				
BRITISH PRODUCTIVITY COUNCIL. A Review of Productivity in Farming	*BPC*	1955	1	9
COOPER, D. W. Farmers' Co-operation in England	*Agricultural Co-operation Association Ltd.*	1954	1	0
DIGBY, MARGARET. Agricultural Co-operation in Great Britain	*Crosby Lockwood*	1949	6	0
EASTERBROOK, L. F. British Agriculture. 4th edn	For the British Council, *Longmans*	1950	1	0
ERNLE, *Lord*. English Farming Past and Present	*Longmans*	1936		
ORWIN, C. S. A History of English Farming	*Nelson*	1949	12	6
WATSON, *Sir* JAMES SCOTT *and* MORE, J. A. Agriculture: The Science and Practice of British Farming. 9th edn [*new edn in preparation*]	*Oliver & Boyd*	1950		
Agricultural Research Service	*HMSO*	1953	2	6
Agricultural Statistics, United Kingdom				
Part I. Acreage and Production of Crops, Numbers of Livestock, etc., 1953	*HMSO*	1955	2	6
Part II. Output and Utilisation of Farm Produce, 1943–50	*HMSO*	1953	2	6
Agricultural Survey of Scotland	Edinburgh, *HMSO*	1946	8	6
Annual Reports				
Animal Health Services in Great Britain	For 1954 *HMSO*	1955	4	0
Department of Agriculture for Scotland				
Agriculture in Scotland 1954	Cmd 9411 *HMSO*	1955	3	6
Annual Review and Determination of Guarantees	For 1955 Cmd 9406 *HMSO*	1955		9
British Farming, by W. B. Mercer	*HMSO*	1951	3	6
Crofting Conditions: Commission of Enquiry	Cmd 9091 *HMSO*	1955	3	6
Decontrol of Food and Marketing of Agricultural Produce	Cmd 8989 *HMSO*	1953		4
Development Commission. Survey of Agricultural, Forestry and Fishery Products and their Utilisation, 1951	*HMSO*	1953	7	6
Domestic Food Consumption and Expenditure 1953	*HMSO*	1955	4	0
Domestic Food Production. Report of Committee on the Organization of Domestic Food Producers	*HMSO*	1950	1	0
The Farm as a Business: A Handbook of Standards and Statistics	*HMSO*	1955	4	6
National Agricultural Advisory Service Report: The First Eight Years 1946–1954	*HMSO*	1955	3	6
Farm Incomes in England and Wales *Annual*	For 1952–53 *HMSO*	1955	6	0
Agriculture: Journal of the Ministry of Agriculture, Fisheries and Food *Monthly*	*HMSO*			9

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Scottish Agriculture: Journal of the Department of Agriculture for Scotland *Quarterly*	*HMSO*		1 0
County Agricultural Executive Committees	Reference Paper R.2687 *COI*	1953	free
Land Development and Conservation: The Contribution by Countries of the Commonwealth	Reference Paper R.3095 *COI*	1955	free

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Annual Reports			
Fisheries of Scotland	For 1954 Cmd 9416 *HMSO*	1955	2 6
Herring Industry Board	For 1954 Cmd 9492 *HMSO*	1955	1 3
White Fish Authority (and Accounts)	For 1954–55 *HMSO*	1955	1 6
Annual Statistical Tables			
Scottish Sea Fisheries	For 1954 *HMSO*	1955	4 0
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CHAMPION, H. G. Forestry	*Oxford University Press*	1954	6 0
TAYLOR, W. LING. Forests and Forestry in Great Britain	*Crosby Lockwood*	1945	12 6
The Forestry Commission in Scotland	*Forestry Commission*	1953	free
The Role of State, Communities and Private Enterprise, in the National Forest Policy of Great Britain, by W. H. Guillebaud	*Forestry Commission*	1952	free
Statement presented by the Forestry Commission of Great Britain to the Sixth Commonwealth Forestry Conference, Canada, 1952	*Forestry Commission*	1952	free
Annual Reports			
Forestry Commissioners	For 1953–54 *HMSO*	1955	3 6
Forest Research	For 1953–54 *HMSO*	1955	6 0
Britain's Forests [13 *booklets*]	*HMSO*	1948 to 1953	6 to 1 3
Census of Woodlands 1947–49: Summary Report	*HMSO*	1951	9
Dedication of Woodlands: Principles and Procedure. 3rd edn	*HMSO*	1953	2 0
National Forest Park and Forestry Commission Guides [9 *booklets*]	*HMSO*	1946 to 1954	1 6 to 5 0
Post-War Forest Policy	Cmd 6447 *HMSO*	1943	3 0
————Private Woodlands	Cmd 6500 *HMSO*	1944	6

Fuel and Power

POLITICAL AND ECONOMIC PLANNING. The British Fuel and Power Industries	*PEP*	1947	30 0
Fuel and the Future. Proceedings of a Conference under the Auspices of the Fuel Efficiency Committee. 3 vols	*HMSO*	1948	15 6

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Ministry of Fuel and Power Statistical Digest *Annual*	For 1954 *HMSO*	1955	25	0
Report of the Committee on National Policy for the Use of Fuel and Power Resources [Ridley Report]	Cmd 8647 *HMSO*	1952	6	6

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NATIONAL COAL BOARD. Fifty Questions and Answers on British Coal	*NCB*	1955	free	
————Plan for Coal	*NCB*	1950	2	6
————Some Notes on the British Coal Industry	*NCB*	1955	free	
————Report of the Advisory Committee on Organization	*NCB*	1955	2	6
POLITICAL AND ECONOMIC PLANNING. Report on the British Coal Industry	*PEP*	1936		
TOWNSHEND-ROSE, H. The British Coal Industry	*Allen & Unwin*	1951	12	6
Annual Report and Accounts National Coal Board	For 1954 *HMSO*	1955	7	6
Coal Mining: Report of the Technical Advisory Committee [Reid Report]	Cmd 6610 *HMSO*	1945	3	6
United Kingdom Coal Industry	Reference Paper R.2916 *COI*	1955	free	
Supplement. Progress and Problems in the United Kingdom Coal Industry.	Reference Paper R.3099 *COI*	1955	free	

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KING, A. L. Statistics Relating to the Petroleum Industry, with Particular Reference to the United Kingdom	*Royal Statistical Society*	1952	2	0
UNITED KINGDOM PETROLEUM INDUSTRY ADVISORY COMMITTEE. UK Petroleum Industry Statistics Relating to Consumption and Refinery Production *Annual*	For 1953 and 1954 *Petroleum Information Bureau*	1955	free	
World Petroleum Production and Refining Capacity	Reference Paper R.3077 *COI*	1955	free	

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BRITISH ELECTRICITY AUTHORITY. Power and Prosperity	*BEA*	1954	1	0
THE GAS COUNCIL. Fuel for the Nation	*Gas Council*	1954	1	0
————The Rise of the Gas Industry in Britain	*Gas Council*	1949	15	0
MACKENZIE, COMPTON. The Vital Flame	For the British Gas Council, *Muller*	1947		
POLITICAL AND ECONOMIC PLANNING. Report on the Gas Industry in Great Britain	*PEP*	1939	13	0
————Report on the Supply of Electricity in Great Britain	*PEP*	1936		
SELF, *Sir* HENRY *and* WATSON, ELIZABETH M. Electricity Supply in Great Britain	*Allen & Unwin*	1952	20	0

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British Electricity Authority For 1954–55 *HMSO*	1955	10	0
Gas Council For 1954–55 *HMSO*	1955	6	6
North of Scotland Hydro-Electric Board For 1954 *HMSO*	1955	2	6
The Gas Industry: Report of the Committee of Enquiry [Heyworth Report] Cmd 6699 *HMSO*	1945	2	0
A Programme of Nuclear Power Cmd 9389 *HMSO*	1955		9
Report of the Committee on Hydro-Electric Development in Scotland Cmd 6406 *HMSO*	1942		9
The Commonwealth and Nuclear Development COI Reference Pamphlet RF.P.3059 *HMSO*	1955	2	0

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Institution of Water Engineers. Manual of British Water Supply Practice. 2nd edn *Heffer*	1954	55	0
Metropolitan Water Board. London's Water Supply 1903–53: A Review of the Work of the Metropolitan Water Board *Staples Press*	1953	15	0
Veal, T. H. P. The Supply of Water *Chapman & Hall*	1950	25	0
Walters, R. C. S. The Nation's Water Supply *Nicholson & Watson*	1936	31	6
Annual Reports			
Department of Health for Scotland For 1954 Cmd 9417 *HMSO*	1955	4	6
Ministry of Housing and Local Government For 1954 Cmd 9559 *HMSO*	1955	7	0
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River Boards: Guide to their Powers and Functions *HMSO*	1950	3	0

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Association of British Chemical Manufacturers. Report on the British Chemical Industry 1949 *Association of British Chemical Manufacturers*	1949	5	0
———— Supplement 1953 *Association of British Chemical Manufacturers*	1953	1	0
British Productivity Council. Reviews of Productivity:			
The Building Industry *BPC*	1954	2	3
The Diesel Locomotive Industry *BPC*	1954	2	0
The Fertilizer Industry *BPC*	1954	2	0
The Pressed Metal Industry *BPC*	1954	2	0
The Valves Industry *BPC*	1954	2	0
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The Pharmaceutical Industry *BPC*	1955	2	3
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Glass Manufacturers Federation. This is the British Glass Industry *GMF*	1955	2	6
Political and Economic Planning. Locomotives: A Report on the Industry *PEP*	1951	12	6
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'The Times' Survey of the British Motor Car Industry	*Annual 'The Times'*	1955	2	6
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Boots and Shoes	*HMSO*	1946	3	6
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Cotton	*HMSO*	1946		
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Jute	*HMSO*	1948	2	6
Pottery	*HMSO*	1946	1	3
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British Aircraft: Progress and Achievement	*COI*	1955	free	
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United Kingdom Agricultural Machinery Industry	Reference Paper R.2818 *COI*	1954	free	
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United Kingdom Chemical Industry	Reference Paper R.2633 *COI*	1953	free	
United Kingdom Motor Vehicle Industry	Reference Paper R.2917 *COI*	1955	free	
United Kingdom Office Equipment Industry	Reference Paper R.2630 *COI*	1953	free	
United Kingdom Pharmaceutical Industry	Reference Paper R.2516 *COI*	1952	free	
United Kingdom Prefabricated Buildings Industry	Reference Paper R.2588 *COI*	1953	free	
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The United Kingdom Textile Industries				
Introductory	Reference Paper R.2275 *COI*	1952	free	
Cotton	Reference Paper R.2277 *COI*	1952	free	
Jute	Reference Paper R.2279 *COI*	1952	free	
Linen	Reference Paper R.2278 *COI*	1952	free	
Rayon and Synthetic Fibres	Reference Paper R.2281 *COI*	1952	free	
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Hardy, A. C. The Book of the Ship	*Sampson Low*	1949		
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Vol. I. Register	*Lloyd's Register of Shipping*	1955	360	0
Vol. II. Appendix	*Lloyd's Register of Shipping*	1955	140	0
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Mead, *Cdr.* Hilary P. Trinity House	*Sampson Low*	1947		
Merchant Ships: World Built . . . 1954	*Adlard Coles/Harrap*	1955	25	0
Owen, *Sir* David J. The Origin and Development of the Ports of the United Kingdom. 2nd edn	*Allman*	1949	30	0
Port of London Authority. 46th Annual Report 1954–55	*PLA*	1955	1	0
'Shipping World' Year Book and Who's Who 1955–56, edited by *Sir* Archibald Hurd	*'Shipping World'*	1955	60	0
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Vol. I Report	For 1954 *HMSO*	1955	3	6
Vol. II Financial and Statistical Accounts	For 1954 *HMSO*	1955	6	6
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Pilcher, R. S. Road Passenger Transport	*Pitman*	1947		
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ROBINSON, HOWARD. Britain's Post Office	*Oxford University Press*	1953	21	0
Annual Accounts				
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Flanders, Allan. Trade Unions	*Hutchinson*	1952	8	6
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Report of the National Advisory Committee on the Employment of Older Men and Women Cmd 8963	*HMSO*	1954	2	0
Second Report Cmd 9628	*HMSO*	1955	1	9
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Supplement *HMSO*	1955	7	6
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United Kingdom Balance of Payments *Twice Yearly*				
1946–1954 (No. 2)	Cmd 9430 *HMSO*	1955	2	6
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Accounts Relating to the Trade and Navigation of the United Kingdom *Monthly*	*HMSO*		12	6
Board of Trade Journal *Weekly*	*HMSO*			9
Report on Overseas Trade *Monthly*	*HMSO*		2	6
United Kingdom Trade Fairs and Exhibitions	Reference Paper R.2833 *COI*	1954	free	

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Chisholm, C., *Editor.* Marketing Survey of the United Kingdom. 5th edn	*Business Publications*	1951	5 gns.	
Jefferys. J. B. *and others.* Distribution of Consumer Goods. A Factual Study of Methods and Costs in the United Kingdom in 1938	*Cambridge University Press*	1950	40	0
————Retail Trading in Britain 1850–1950	*Cambridge University Press*	1954	50	0
Smith, Henry. Retail Distribution: A Critical Analysis. 2nd edn	*Oxford University Press*	1948	18	0
Britain's Shops: A Statistical Summary of Shops and Service Establishments	*HMSO*	1952	3	6
Census of Distribution and Other Services 1950				
Vol. I. Retail and Service Trades: Area Tables	*HMSO*	1953	7	6
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The Co-operative Movement in Britain	Reference Paper R.2524 *COI*	1953	free	

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Beveridge, *Lord.* Voluntary Action	*Allen & Unwin*	1948	16	0
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Cole, G. D. H. British Social Services. rev. edn	For the British Council, *Longmans*	1949	1	0
Family Welfare Association. Guide to the Social Services, 1955: A Year Book of Information respecting the Statutory and Voluntary Means of Assistance. 46th edn	*Staples Press*	1955	5	0
Hall, M. Penelope. The Social Services of Modern England. 3rd rev. edn	*Routledge & Kegan Paul*	1955	25	0
Morris, C., *Editor.* Social Case-Work in Great Britain. 2nd edn	*Faber & Faber*	1955	15	0
Morris, Mary. Voluntary Organizations and Social Progress	*Gollancz*	1955	18	0
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WICKWAR, H. *and* M. The Social Services: An Historical Survey	*John Lane*	1949	12	6
YOUNGHUSBAND, E. L. Social Work in Britain: Supplementary Report on the Employment and Training of Social Workers	Dunfermline: *Carnegie United Kingdom Trust*	1951	free	
Social Service: A Quarterly Survey	*NCSS*	p.a.	10	0
Social Work: A Quarterly Review of Family Casework	*Family Welfare Association*	p.a.	10	0
Children in Britain	Reference Paper R.2548 *COI*	1953	free	
Social Services in Britain	COI Reference Pamphlet RF.P.2935 *HMSO*	1955	2	6
Social Work and the Social Worker in Britain	Reference Pamphlet RF.P.2238 *COI*	1951	free	

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ROWNTREE, B. SEEBOHM *and* LAVERS, G. R. Poverty and the Welfare State: A Third Social Survey of York	*Longmans*	1951	7	6
Annual Reports				
Ministry of Pensions and National Insurance	For 1954 Cmd 9495 *HMSO*	1955	4	0
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War Pensioners	For 1954 *HMSO*	1955	4	0
Children in the Care of Local Authorities in England and Wales, November 1954 *Annual*	Cmd 9488 *HMSO*	1955		4
Everybody's Guide to National Insurance	*HMSO*	1955		6
Memorandum on the Draft National Assistance (Determination of Need) Amendment Regulations	Cmd 9635 *HMSO*	1955		4
National Insurance Bill, 1954: Memorandum and Report by the Minister	Cmd 9338 *HMSO*	1954		4
Report by the Government Actuary on the Financial Provisions of the Bill	Cmd 9332 *HMSO*	1954		4
Report of the Care of Children Committee [Curtis Report]	Cmd 6922 *HMSO*	1946	4	6
Report of the Committee on the Economic and Financial Problems of the Provision for Old Age	Cmd 9333 *HMSO*	1954	4	0
Reports by the Government Actuary on the First Quinquennial Review				
National Insurance Act, 1946	*HMSO*	1954	2	6
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CLARKE, J. J. Introduction to Public Health Law	*Cleaver-Hume Press*	1949	7	6

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Clegg, Hugh. Medicine in Britain. 4th edn For the British Council, *Longmans*	1951	2	0
Ross, *Sir* James Stirling. The National Health Service in Great Britain *Oxford University Press*	1952	30	0
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Part I. 1. National Health Service. 2. Welfare, Food and Drugs, and Civil Defence Cmd 9566 *HMSO*	1955	8	0
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National Health Service Summarised Accounts *Annual* For 1953–54 *HMSO*	1955	2	0
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Report of Committee on General Practice within the National Health Service [Cohen Report] *HMSO*	1954	2	6
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Education in 1954	Cmd 9521 *HMSO*	1955	7	6
Education in 1900–1950	Cmd 8244 *HMSO*	1951	7	6
Scottish Education Department				
Education in Scotland in 1954	Cmd 9428 *HMSO*	1955	4	0
Curriculum and Examinations in Secondary Schools [Norwood Report]	*HMSO*	1943	3	0
Education for Commerce. Report of a Special Committee	*HMSO*	1949	1	6
Further Education (Ministry of Education Pamphlet No. 8)	*HMSO*	1947	2	0
Further Education: A Report of the Advisory Council on Education in Scotland	Cmd 8454 *HMSO*	1952	5	0
The Health of the School Child. Report of the Chief Medical Officer of the Ministry of Education for 1952 and 1953	*HMSO*	1954	5	0
Junior Secondary Education [Scotland]	*HMSO*	1955	5	0
Ministry of Education Building Bulletins: Nos. 1–11	*HMSO*	1949	1	0
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The New Secondary Education (Ministry of Education Pamphlet No. 9)	*HMSO*	1947	2	6
Our Changing Schools: A Picture for Parents	*HMSO*	1950	2	0
Primary School in Scotland: Memorandum on the Curriculum	*HMSO*	1950	2	6
Public Education in Scotland. rev. edn	*HMSO*	1955	2	0
Public Schools and the General Educational System [Fleming Report]	*HMSO*	1944	4	6
Report of the Committee on Organisation and Finance of Adult Education	*HMSO*	1954	2	6
Secondary Education: A Report of the Advisory Council on Education in Scotland	Cmd 7005 *HMSO*	1947	6	0
Training and Supply of Teachers: Report covering the period July 1949 to February 1951	*HMSO*	1951	1	0
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Annual Return from Universities and University Colleges	For 1953–54 Cmd 9477 *HMSO*	1955	2	6
University Development 1947–52	Cmd 8875 *HMSO*	1953	3	6
Memorandum on the Ministry of Education Estimates *Annual*	For 1955–56 Cmd 9415 *HMSO*	1955		6
Education in Britain	*COI* Reference Pamphlet RF.P.3084 *HMSO*	1955	2	0
Education in Britain's Armed Forces	Reference Paper R.2390 *COI*	1952	free	
Technological Education in Britain	Reference Paper R.2652 *COI*	1953	free	
Universities in Britain				
Part I. General	Reference Paper R.3165 *COI*	1955	free	

			s.	d.
Part II. The English Universities	Reference Paper R.3037 *COI*	1955	free	
Part III. The Scottish Universities: The Universities of Wales and Northern Ireland	Reference Paper R.3038 *COI*	1955	free	
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Youth Services

			s.	d.
EAGER, W. McG. Making Men: The History of Boys' Clubs and Related Movements in Great Britain	*University of London Press*	1953	20	0
ETTE, G. For Youth Only	*Faber & Faber*	1949	10	6
JEPHCOTT, PEARL. Some Young People.	*Allen & Unwin*	1954	12	6
JORDAN, G. W. *and* FISHER, E. M. Self-Portrait of Youth	*Heinemann*	1955	12	6
KUENSTLER, P. H. K., *Compiler*. Youth Work in England: Extracts from Ministry of Education and other publications relating to Statutory and Voluntary Youth Work	*University of London Press*	1954	4	0
Citizens of To-morrow: A Study of Influences Affecting the Upbringing of Young People	For King George's Jubilee Trust *Odhams*	1955	3	0
STANDING CONFERENCE OF NATIONAL VOLUNTARY YOUTH ORGANISATIONS. Youth in Britain 1953	*NCSS*	1953	1	0
Purpose and Content of the Youth Service	*HMSO*	1945		4
Youth Organisations in Britain	Reference Paper R.2957 *COI*	1954	free	

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			s.	d.
Annual Report Ministry of Housing and Local Government	For 1954 Cmd 9559 *HMSO*	1955	7	0

Housing

			s.	d.
Cost of Housebuilding: Reports of the Committee of Inquiry				
First	*HMSO*	1948	2	6
Second	*HMSO*	1950	1	3
Third	*HMSO*	1952	1	3
Houses: The Next Step	Cmd 8996 *HMSO*	1953		9
Housing Manual 1949	*HMSO*	1949	3	6
————Supplement. Housing for Special Purposes	*HMSO*	1951	2	0
————Supplement. Houses 1952	*HMSO*	1952	1	0
————Supplement. Houses 1953	*HMSO*	1953	3	0
Housing Policy, Scotland	Cmd 8997 *HMSO*	1953		6
Housing Return, England and Wales	*Quarterly Cmd Paper* *HMSO*		1	3
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Report of Working Party on Building Operations	*HMSO*	1950	2	6
Housing in Britain	Reference Pamphlet RF.P.2797 *COI*	1954	free	

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Abercrombie, *Sir* Patrick. Town and Country Planning. 2nd edn *Oxford University Press*	1943	6	0
Association for Planning and Regional Reconstruction. Town and Country Planning Textbook *Architectural Press*	1950	42	0
Brown, H. J., *Editor*. Practical Points on Planning Law *Sweet & Maxwell*	1951	15	0
Gibberd, Frederick. Town Design. 2nd edn *Architectural Press*	1955	73	6
Heap, Desmond. An Outline of Planning Law. 2nd edn *Sweet & Maxwell*	1955	25	0
Howard, Ebenezer. Garden Cities of To-morrow. [*New edn of* To-morrow: A Peaceful Path to Real Reform, *first published in* 1898] *Faber & Faber*	1946	8	6
Keeble, Lewis. Principles and Practice of Town and Country Planning *Estates Gazette*	1952	47	6
Nuffield College Social Reconstruction Survey. Britain's Town and Country Pattern: A Summary of the Barlow, Scott and Uthwatt Reports *Faber & Faber*	1943	2	6
Purdom, C. B. The Building of Satellite Towns: A Contribution to the Study of Town Development and Regional Planning. 2nd edn *Dent*	1949	50	0
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Development Corporations of the New Towns			
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[Scotland] For 1954–55 *HMSO*	1955	3	0
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Nature Conservancy For 1954–55 *HMSO*	1955	4	0
The Density of Residential Areas *HMSO*	1952	5	0
Design in Town and Village, by T. Sharp, F. Gibberd *and* W. G. Holford *HMSO*	1953	7	6
Development Plans Explained, by B. J. Collins *HMSO*	1951	2	0
National Parks and Access to the Countryside *HMSO*	1950		6
Programme of Highland Development Cmd 7976 *HMSO*	1950	1	0
Report of the Committee on Compensation and Betterment 1942 [Uthwatt Report] Cmd 6386 *HMSO*	1942	4	6
Report of the Committee on Footpaths and Access to the Countryside Cmd 7207 *HMSO*	1947	1	3
Report of the Committee on Land Utilisation in Rural Areas 1942 [Scott Report] Cmd 6378 *HMSO*	1942	4	0
Report of the Committee on National Parks (England and Wales) Cmd 7121 *HMSO*	1947	5	6
Report of the Royal Commission on the Distribution of the Industrial Population 1939 [Barlow Report] Cmd 6153 *HMSO*	1940	9	0
Town and Country Planning 1943–51: Progress Report Cmd 8204 *HMSO*	1951	6	0
Town and Country Planning in Britain COI Reference Pamphlet RF.P.2984 *HMSO*	1955	1	6

XII. RELIGION, SCIENCE, AND THE ARTS

Religion

			s.	d.
Baptist Union. Baptist Handbook: edited and published under the direction of the Council of the Baptist Union of Great Britain and Ireland For 1955	*Carey Kingsgate Press*	1955	17	6
Catholic Directory, 1955	*Burns, Oates & Washbourne*	1954	15	0
Church of England. Official Yearbook of the National Assembly of the Church of England For 1954–55 For the Church Assembly,	*Society for the Promotion of Christian Knowledge*	1954	20	0
Church of Ireland. The Irish Church Directory and Year Book For 1955	*Church of Ireland Printing & Publishing Company*	1955	7	6
Church of Scotland. Year Book For 1954	*Church of Scotland Committee of Publications*	1954	5	0
Church Relations in England	*Church Information Board*	1955		4
Congregational Union of England and Wales. Congregational Year Book For 1955	*Congregational Union of England and Wales*	1955	17	6
Congregational Union of Scotland. Year Book For 1954–55	*Congregational Union of Scotland*	1954	2	6
Episcopal Church in Scotland. The Scottish Episcopal Church Year Book and Directory For 1955–56	*Representative Church Council of the Episcopal Church in Scotland*	1955	6	6
Methodist Church. Minutes of the Annual Conference of the Methodist Church, 1954	*Methodist Publishing House*	1954	12	6
Presbyterian Church of England. Official Handbook For 1954–55	*Presbyterian Church of England*	1954	5	0
Presbyterian Church of Wales. Year Book For 1955	*Presbyterian Church of Wales*	1955	4	6
Salvation Army. Year Book For 1955	*Salvationist Publishing & Supplies*	1955	3	9
Unitarian and Free Christian Churches. Year Book of the General Assembly For 1955	*Lindsey Press*	1955	4	0
United Free Church of Scotland. Handbook For 1954	*United Free Church of Scotland*	1954	2	6
Who's Who in the Free Churches (and other denominations) 1951, edited by L. G. Pine	*Shaw Publishing Company*	1951		

Science

Bailey, *Sir* Edward. Geological Survey of Great Britain	*Thomas Murby*	1952	22	6
British Council. Scientific and Learned Societies of Great Britain: A Handbook compiled from Official Sources. 57th edn	*Allen & Unwin*	1951	30	0
Commonwealth Agricultural Bureaux. Gazetteer of Agricultural and Forestry Research Stations in the British Commonwealth	*CAB*	1952	30	0

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Edwards, R. S. Co-operative Industrial Research	*Pitman*	1950	20	0
Federation of British Industries. Report of the Third Conference of Industrial Research Directors and Managers	*Federation of British Industries*	1953	3	6
———Research and Development in British Industry: A Survey of Expenditure 1950–51	*Federation of British Industries*	1952	1	3
Harris, *Miss* P. M. *and* Jay, K. E. B. A List of Reports and Published Papers	*Atomic Energy Authority*	1955	7	6
Heath, *Sir* H. Frank *and* Hetherington, A. L. Industrial Research and Development in the United Kingdom: A Survey	*Faber & Faber*	1946	25	0
Hill, D. W. Co-operative Research in Industry	*Hutchinson*	1947	10	6
Horder, *Lord*. Fifty Years of Medicine	*Duckworth*	1953	5	0
Hudson, Derek *and* Luckhurst, K. W. The Royal Society of Arts, 1754–1954	*Murray*	1954	30	0
Jaramillo-Arango, *Dr.* Jaime. The British Contribution to Medicine	*Livingstone*	1953	25	0
Jay, K. E. B. Atomic Energy Research at Harwell	*Butterworth's Scientific Publications*	1955	5	0
Martin, T. The Royal Institution	For the British Council, *Longmans*	1948		
Royal Society of London. Report of Empire Scientific Conference 1946. 2 vols.	*Cambridge University Press*	1948	42	0
———The Year Book of the Royal Society of London	*Royal Society*	1955	15	0
Admiralty. Notes on Atomic Energy	*HMSO*	1955	6	0
Aeronautical Research Council. Review 1949–54	*HMSO*	1955	5	0
Annual Reports				
Advisory Council on Scientific Policy For 1954–55 Cmd 9537	*HMSO*	1955		6
Atomic Energy Authority First Report For 1954–55	*HMSO*	1955	2	0
Department of Scientific and Industrial Research For 1953–54 Cmd 9386	*HMSO*	1955	9	0
Medical Research Council For 1953–54 Cmd 9506	*HMSO*	1955	7	6
Meteorological Office For 1954–55	*HMSO*	1955	2	6
National Physical Laboratory For 1954	*HMSO*	1955	4	0
National Research Development Corporation For 1953–54	*HMSO*	1955		9
Britain's Atomic Factories: The Story of Atomic Energy Production in Britain	*HMSO*	1955	5	0
A Description of the Work of the Department of Scientific and Industrial Research	*HMSO*	1949	1	0
Fifty Years at Farnborough	*HMSO*	1955	2	0
The Future Organisation of the U.K. Atomic Energy Project Cmd 8986	*HMSO*	1953		6
Government Scientific Organisation in the Civilian Field	*HMSO*	1951	1	6
Harwell: The British Atomic Energy Research Establishment 1946–51	*HMSO*	1955	6	0

		s.	d.
Jubilee Book of the National Physical Laboratory, by John Langdon-Davies *HMSO*	1951	4	0
Science Museum. Classified List of Historical Events in Mechanical and Electrical Engineering *HMSO*	1955	2	0
Scientific Research in British Universities, 1953–54 *HMSO*	1954	10	0
Britain Uses Atoms *COI*	1955	free	
The Commonwealth and Nuclear Development COI Reference Pamphlet RF.P.3059 *HMSO*	1955	2	0
Commonwealth Scientific Research Reference Paper R.2873 *COI*	1954	free	

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		s.	d.
Arts Council of Great Britain. Housing the Arts. Annual Report 1954–55 *Arts Council*	1955	2	6
————The Arts Council of Great Britain: What It Is and What It Does *Arts Council*	1954	free	
British Council. Report on the Work of the British Council 1934–55 *British Council*	1955	2	6
Carnegie United Kingdom Trust. Annual Report Dunfermline: *Carnegie United Kingdom Trust*	1955	free	

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		s.	d.
Directory of Museums and Art Galleries in the British Isles *Museums Association*	1948	21	0
Hendy, *Sir* Philip. The National Gallery, London *Thames & Hudson*	1955	126	0
Lamb, *Sir* Walter. The Royal Academy. 2nd edn *Bell*	1951	15	0
Lees-Milne, James, *Editor*. The National Trust: A Record of Fifty Years' Achievement, 1895–1945. 3rd edn *Batsford*	1948	6	0
Mills, E. D. The New Architecture in Great Britain, 1946–53 *Standard Catalogue Company*	1953	40	0
Museum Calendar *Annual* *Museums Association*	1955	5	0
The National Gallery, 1938–54 *National Gallery*	1955	12	6
Reid, H. Contemporary British Art *Penguin Books*	1951	3	6
Rothenstein, J. An Introduction to English Painting *Cassell*	1952	21	0
Summerson, John. Architecture in Britain, 1530–1830 *Penguin Books*	1953	45	0
Waterhouse, Ellis K. Painting in Britain, 1530–1790 *Penguin Books*	1953	45	0
Who's Who In Art. 7th edn *Art Trade Press*	1954	50	0
Annual Reports			
Ancient Monuments Boards for England, Scotland and Wales For 1954 *HMSO*	1955		6
Historic Buildings Council for England For 1954 *HMSO*	1955		9
Historic Buildings Council for Scotland For 1954 *HMSO*	1955		6
Historic Buildings Council for Wales For 1954 *HMSO*	1955		4
Royal Fine Art Commission For 1954 Cmd 9438 *HMSO*	1955		6
Standing Commission on Museums and Galleries For 1949–53 *HMSO*	1954	1	6
Tate Gallery For 1954–55: Review 1938–53 *HMSO*	1955	3	0

Literature

			s.	d.
Annual Bibliography of English Language and Literature 1942, edited for the Modern Humanities Association by Angus Macdonald [1943–44 *in preparation*]	*Cambridge University Press*	1952	25	0
British National Bibliography *Annual*	*The Council of the British National Bibliography*	1954	160	0
Library Association Year Book 1955	*Library Association*	1955	21	0
Pryce-Jones, Alan. Prose Literature 1945–50	For the British Council, *Longmans*	1951	2	6
Ross, Alan. Poetry 1945–50	For the British Council, *Longmans*	1951	2	6
Scott-James, R. A. Fifty Years of English Literature, 1900–1950	*Longmans*	1951	15	0
The Year's Work in English Studies. Vol. 34, 1952, edited by Frederick S. Boas *and* Beatrice White	*Oxford University Press*	1955	21	0

Drama

			s.	d.
Shakespeare Survey, 8: An Annual Survey of Shakespearean Study and Production	*Cambridge University Press*	1955	18	0
The Stage Year Book, 1955 *Annual*	*Carson & Comerford*	1955	10	6
Trewin, J. C. Drama 1945–50	For the British Council, *Longmans*	1951	2	6
Who's Who in the Theatre, edited by John Parker	*Pitman*	1952	80	0

Films

			s.	d.
British Film Institute Annual Report	For 1954–55 *British Film Institute*	1955	2	6
Field, Mary. Good Company: The Story of the Children's Entertainment Film Movement in Great Britain 1943–1950	*Longmans*	1952	12	6
————Children and Films	Dunfermline: *Carnegie United Kingdom Trust*	1954	10	6
Forman, Denis. Films 1945–50	For the British Council, *Longmans*	1952	2	6
Low, Rachel. The History of the British Film.	*Allen & Unwin*			
Vol. I. 1896–1906 (*with* Roger Manvell)		1948		
Vol. II. 1906–1914		1949	25	0
Vol. III. 1914–1918		1951	35	0
Manvell, Roger. The Film and the Public	*Penguin Books*	1955	3	6
Political and Economic Planning. The British Film Industry: A Report on Its History and Present Organisation	*PEP*	1952	18	0
Rotha, Paul *and others*. Documentary Film. 3rd edn	*Faber & Faber*	1952	42	0
Annual Reports				
Cinematograph Films Council	For 1954–55 *HMSO*	1955		4
National Film Finance Corporation (and Statement of Accounts)	For 1954–55 Cmd 9464 *HMSO*	1955		9

Music, Opera and Ballet

			s.	d.
Ballet Annual 1956, edited by Arnold L. Haskell	*Black*	1955	21	0
British Federation of Music Festivals Year Book	*British Federation of Music Festivals*	1954	5	0
Clarke, Mary. The Sadler's Wells Ballet: A History and an Appreciation	*Black*	1955	21	0
Haskell, Arnold. Ballet 1945–50	For the British Council, *Longmans*	1951	2	6
Journal of the English Folk Dance and Song Society *Annual*	*The Society*	1954	10	6
Music Book	*Hinrichsen*	1952	25	0
Shaw, Watkins. The Three Choirs Festival: The Official History . . . *c.* 1713–1953	*Baylis*	1954	12	6
Walker, Ernest. A History of Music in England. 3rd edn	*Oxford University Press*	1952	35	0

XIII. SOUND AND TELEVISION BROADCASTING

Beachcroft, T. O. British Broadcasting. 2nd edn	For the British Council, *Longmans*	1948	1	0
British Broadcasting Corporation. British Broadcasting: A Bibliography	*BBC*	1954	1	0
———BBC Handbook 1956	*BBC*	1955	5	0
———The BBC Television Service: A Technical Description. 3rd edn	*BBC*	1952	2	6
Coase, R. H. British Broadcasting: A Study in Monopoly	*Longmans*	1950	12	6
Gorham, Maurice. Broadcasting and Television since 1900	*Dakers*	1952	18	0
Haley, *Sir* William. The Responsibilities of Broadcasting: Lewis Fry Memorial Lectures 1948	*BBC*	1948		6
Manvell, Roger. On the Air: A Study of Broadcasting in Sound and Television	*André Deutsch*	1953	16	0
Simon of Wythenshawe, *Lord*. The BBC from Within	*Gollancz*	1953	16	0
Swift, J. Adventure in Vision: The First Twenty-Five Years of Television	*Lehmann*	1950		
Television Annual 1956, edited by Kenneth Baily	*Odhams*	1955	9	6
Annual Reports and Accounts				
British Broadcasting Corporation For 1954–55 Cmd 9533	*HMSO*	1955	4	6
Independent Television Authority For 1954–55	*HMSO*	1955	2	0
Copy of a New Charter of Incorporation Granted to the BBC Cmd 8605	*HMSO*	1952		9
Copy of the Licence and Agreement between the Postmaster-General and the BBC Cmd 8579	*HMSO*	1952		6
Copy of the Licence granted on April 6 1955 by H.M. Postmaster-General to the Independent Television Authority Cmd 9451	*HMSO*	1955		4
Memorandum on Television Policy Cmd 9005	*HMSO*	1953		4

			s.	d.
Overseas Broadcasting: Report from the Select Committee on Estimates	*HMSO*	1952	6	6
Report of the Broadcasting Committee 1949	Cmd 8116 *HMSO*	1951	6	6
Appendix H. Memoranda Submitted to the Committee	Cmd 8117 *HMSO*	1951	10	6
Television Advisory Committee				
First Report 1952	*HMSO*	1953	1	6
Second Report 1953	*HMSO*	1954	1	0
British Contributions to Television	Reference Paper R.2708 *COI*	1954	free	

XIV. THE PRESS

			s.	d.
CAMROSE, *Lord.* British Newspapers and their Controllers	*Cassell*	1947	8	6
GENERAL COUNCIL OF THE PRESS. The Press and the People: Second Annual Report	*The Council*	1955	2	0
HERD, HAROLD. The March of Journalism: The Story of the British Press from 1622 to the Present Day	*Allen & Unwin*	1952	21	0
Hulton Readership Survey 1955 *Annual*	*Hulton Press*	1955	42	0
Kemsley Manual of Journalism. 2nd edn	*Cassell*	1954	25	0
MASS OBSERVATION. The Press and Its Readers	*Art & Technics*	1949	7	6
The National Readership Survey	*Institute of Incorporated Practitioners in Advertising*	1954	210	0
Newspaper Press Directory	*Benn Bros.*	1955	42	0
POLITICAL AND ECONOMIC PLANNING. Balance Sheet of the Press	*PEP*	1955	2	6
————Ownership of the Press	*PEP*	1955	2	6
SINCLAIR, ROBERT. The British Press: The Journalist and His Conscience	*Home & van Thal*	1949		
Willing's Press Guide 1955 *Annual*	*Willing's Press Service*	1955	21	0
Writers' and Artists' Year Book 1955 *Annual*	*Black*	1955	7	6
Report of the Royal Commission on the Press 1947–49	Cmd 7700 *HMSO*	1949	9	0
The British Press	Reference Paper R.2719 *COI*	1954	free	

OFFICIAL HISTORIES OF THE SECOND WORLD WAR: UNITED KINGDOM

Civil Series

			s.	d.
	Longmans and HMSO			
British War Economy, by W. K. Hancock and M. M. Gowing		1949	30	0
British War Production, by M. M. Postan		1952	32	6
Civil Defence, by T. H. O'Brien		1955	37	6
Civil Industry and Trade, by E. L. Hargreaves and M. M. Gowing		1952	37	6
Coal, by W. H. B. Court		1951	21	0
Contracts and Finance, by W. Ashworth		1953	22	6
Control of Raw Materials, by J. Hurstfield		1953	35	0

		s.	d.
The Economic Blockade, Vol. I (1939–41), by W. N. Medlicott	1952	35	0
Food, Vol. I, The Growth of Policy, by R. J. Hammond	1951	25	0
Merchant Shipping and the Demands of War, by C. B. A. Behrens	1955	35	0
North American Supply, by H. Duncan Hall	1955	35	0
Problems of Social Policy, by R. M. Titmuss	1950	25	0
Statistical Digest of the War (prepared in the Central Statistical Office)	1951	32	6
Studies in the Social Services, by S. M. Ferguson and H. Fitzgerald	1954	22	6
Works and Buildings, by C. M. Kohan	1952	32	6

Medical Series

Longmans & HMSO

The Army Medical Services (Administration), edited by F. A. E. Crew			
Vol. I.	1953	50	0
Vol. II.	1955	65	0
Civilian Health and Medical Services, edited by Sir Arthur MacNalty			
Vol. I. Ministry of Health Services: Other Civilian Health and Medical Services	1953	45	0
Vol. II. The Colonies; the Medical Services of the Ministry of Pensions; Public Health in Scotland; Public Health in Northern Ireland	1955	45	0
The Emergency Medical Services			
Vol. I. England and Wales, edited by C. L. Dunn	1952	50	0
Vol. II. Scotland, Northern Ireland, and the Principal Air-Raids on Industrial Centres in Great Britain, edited by C. L. Dunn	1953	50	0
Medical Research, edited by F. H. K. Green and Sir Gordon Covell	1953	40	0
Medicine and Pathology, edited by Sir Zachary Cope	1952	50	0
Royal Air Force Medical Services. Vol. I, Administration, edited by Squadron Leader S. C. Rexford-Welch	1955	70	0
Royal Naval Medical Service. Vol. I. Administration, by Surgeon-Cdr. J. L. S. Coulter	1954	50	0
Surgery, edited by Sir Zachary Cope	1954	80	0

INDEX

Page

A

ASLIB, *see* Association of Special Libraries
Accident Prevention Movement .. 275
Accidents:
  aircraft 238
  factories 275
  mines 275
  railway workers 275
  road users 229
  ships' crews 275
Administrative Staff College 141
Admiralty .. 42, 99, 102, 103, 135
  research 102, 104, 381, 382
Advisory Council for Scientific and Industrial Research .. 372, 373, 375
Advisory Council on Scientific Policy 374, 385
Advisory Council on Treatment of Offenders 82
Aerodromes 235, 243–4, 245
Age distribution, population 10
Agricultural colleges 160
Agricultural Departments 149
Agricultural Executive Committees .. 153, 154, 159
Agricultural Improvement Council .. 156
Agricultural Land Commission .. 155
Agricultural Land Service .. 155–6
Agricultural Land Tribunals 154
Agricultural Machinery Advisory Committee 159
Agricultural machinery industry 159, 190
Agricultural Mortgage Corporation .. 156, 292
Agricultural Research and Nature Conservation Committee 374, 377, 379
Agricultural Research Council 159–60, 374, 377–8, 386
Agricultural Research Institutes 160, 378
Agricultural workers:
  earnings and wages 266, 271
  numbers employed 118, 142, 253, 254, 255, 256
  protective legislation .. 271–2
Agriculture 142–61
  advisory services 155–6, 160
  allotments 144
  annual review 149
  artificial insemination 157
  capital formation 142
  crofts 145, 154–5

Page
Agriculture—*contd.*
  crops 143, 146, 148, 157
  education 160–1
  farm drainage 157
  farm management 154, 155
  farm tenure 153–4
  farming, types of 143–4
  fertilizers 152, 198
  grass 146, 157, 159
  hill farming 158
  horticulture 143–4
  land use 142–6, 155, 351
  livestock 144, 146, 148, 149, 152, 157–9
  loan facilities 156–7, 292
  marginal production schemes 152, 159
  marketing schemes 148–51
  mechanization 159
  milk and dairying 147, 148, 151, 152, 157, 158
  policy 148–50
  price control and decontrol 148–53
  price guarantees 149–51
  production 121, 142, 145–8
  research 157, 159–61, 374, 377–8, 381, 386
  shows 161
  smallholdings .. 144–5, 154–5
  subsidies and grants 148–50, 152–3, 157, 158–9
Agriculture, Fisheries and Food, Ministry of 42–3, 135, 149, 151, 154, 155, 158, 163, 166, 381, 386
Airbrokers' Association 242
Air Companies, Independent 236–7, 241–2
Air Corporations 137, 234, 235–6, 237–41, 242, 245
Air Council 43, 111–12
Air Finance Ltd. 195, 293
Air Force, *see* Royal Air Force
Air Ministry 43, 99
Air pollution, prevention of 168
Air Registration Board 243
Air Safety Board 243
Air-Sea Search and Rescue Service .. 246
Air Training Corps 114, 349
Air transport, *see* Civil Aviation
Air Transport Advisory Council 236, 237, 242
Aircraft:
  civil 194–5, 235, 238, 239, 241, 242, 243, 244
  industry 139, 194–5, 235
  Service 101, 104, 112–13, 194, 243

Page
Airmail services 234, 238, 239, 248
Airports 239, 241, 243–4
Allotments 144
Almoners 333
Amalgamated Press 411
Ambulance services:
  civil defence 115, 116
  National Health 336
Amphibious Warfare Headquarters .. 101
Ancient Monuments Board 390
Anglican Communion .. 364–6
Anglican Congress 366
Anglo-American Productivity Council 140
Anti-Locust Research Centre .. 383
Apollo Society 393
Appeal, Court of 73, 80
Appeal Committee of Quarter Sessions 76
Appellate Courts 36, 73–4, 76, 77–8
Appointments Service .. 61, 257
Appropriation, *see* Finance
Approved schools (for young offenders) 86
Arbitration Boards 267
Archbishops:
  Canterbury .. 38 footnote, 364, 365, 368
  Westminster, Cardinal Archbishop of 367
  York .. .. 38 footnote, 364, 365
Architects' Registration Council .. 391
Architecture 390–1
'Ardil' 200
Area Boards:
  electricity 174
  gas 180
  railways 219
Area Transport Users' Consultative Committees 217–18
Armed Forces 22, 96–114, 117
  commissioned ranks in 101
  equipment 101–2, 103, 107–8, 112–13
  national service in 97, 100, 101, 109, 110, 111, 114, 117
  oversea commitments 104–5, 107, 112
  participation in Civil Defence .. 117
  pre-service organizations 106, 111, 114, 349
  research and development 53, 102, 104, 107–8, 112, 381
  reserves 99, 100, 106, 110, 111, 113–14
  staff colleges 101
  strength 99–101, 104, 110, 111, 113–14, 253
  supply 53, 101–2
Army 96, 100–1, 107–11
Army Cadet Force 111, 349
Army Council 54, 107
Army Emergency Reserve 110 footnote, 111

Page
Arrest, law relating to 70
Art Exhibitions Bureau 389
Art galleries 387–9
Art schools 389
Art societies 389
Artificial insemination 157
Arts Council of Great Britain 386, 387, 389, 391, 393, 394, 396, 397
Arts, promotion of 386–98
Assay Offices 205
Assizes 73, 75
Associated British Cinemas (Television) Ltd. 407
Associated Newspapers Ltd. .. 409, 410
Associated Press 413
Associated-Rediffusion Ltd. 407
Associated TeleVision Ltd. 407
Association for the Preservation of Rural Scotland 362
Association of British Chambers of Commerce 134, 140
Association of Special Libraries and Information Bureaux (ASLIB) .. 392
Atomic energy:
  Authority 55, 102, 176–8, 198, 374, 379–80, 386
  expenditure on 283, 386
  Office 379
  power plants 176–8, 380
  research establishments 198, 379–80
  weapons 96–7, 102, 108, 380
Attendance centres (young offenders) 87
Attested herds 158
Attorney-General .. 37, 50, 76, 79
Auxiliary Fire Service .. 115, 116
Aviation, *see* Aircraft industry, Civil aviation *and* Royal Air Force

B

BBC, *see* British Broadcasting Corporation
BEA, *see* British European Airways
BIF, *see* British Industries Fair
BOAC, *see* British Overseas Airways Corporation
Bail 70
Balance of payments .. 120, 298–307
Ballet 397–8
Baltic Exchange 211
  Air Section of 242
Bank Holidays 274–5
Bank notes 289, 416
Bank of England 278, 288–9, 291, 292, 312
Bank rate 289
Banking system 288–91

Page

- Baptist Church 367
- Barristers .. 76 footnote, 79, 80
- Belfast Fire Brigade 94, 95
- Belfast Harbour Commissioners .. 216
- Belfast Museum and Art Gallery .. 388
- Belfast, port of .. 214, 215, 216
- Beveridge Reports:
  - broadcasting.. 405
  - social insurance 322
- Bible 19 footnote, 22, 364 footnote
- Bicycle industry, *see* Cycle industry
- Bills, parliamentary:
  - Money Bills 30, 31, 278
  - Private Bills 30
  - Private Members' Bills 30–1
  - procedure 30–1, 42
  - Public Bills 31
  - Royal Assent to 22, 31, 32
- Bird sanctuaries 361
- Birth rate 8–9, 10, 11
- Blind persons:
  - employment and training .. 261, 262
  - free broadcasting reception .. 399
  - National Library for 392
  - postal concessions 248
  - welfare 319, 328, 338
- Blood transfusion service 333
- Board of Control 331
- Board of Inland Revenue, *see* Inland Revenue, Board of
- Board of Survey (waterways).. .. 231
- Board of Trade, *see* Trade, Board of
- Boards of Management:
  - BBC 400
  - Transport 219
- Books:
  - lent by public libraries 392
  - numbers published.. .. 392–3
- Borough Councils 63–4, 65, 66, 67, 69
- Borstal Institutions 82, 85–6
- Boy Scouts Association .. 347, 348–9
- Boys' Brigade 349
- Brewing industry 202
- Brickmaking 203
- Bristol, port of.. .. 214, 215, 216
- Bristol Steamship Owners' Association 210
- British Academy 393
- British Actors' Equity 394
- British Association for the Advancement of Science 370
- British Bankers' Association 289
- British Boot, Shoe and Allied Trades Research Association 206
- British Broadcasting Corporation .. 342, 399–405
- British Ceramic Research Association 182

Page

- British Commonwealth Scientific Offices 384–5
- British Cotton Industry Research Association (Shirley Institute) .. 199
- British Council 43, 385, 386–7, 391, 393, 396, 398
- British Council of Churches 368
- British Drama League .. 392, 394
- British Electrical and Allied Industries Research Association 179
- British Electricity Authority 174
  - *See also* Central Electricity Authority
- British Empire Cancer Campaign .. 369
- British Employers' Confederation 134, 140, 263–4, 267
- British European Airways 234, 235–6, 239–41, 248
- British Film Institute.. 396
- British Film Production Fund .. 396
- British Independent Air Transport Association 242
- British Industries Fair 310
- British Institute of Management 53, 134, 141
- British Iron and Steel Federation .. 187
- British Isles 1–19
  - area 1
  - climate 4–5
  - geography 1–6
  - geology 2
  - population 6–16
- British Leather Manufacturers' Research Association 206
- British Legion.. 328
- British Medical Association 369
- British Motor Corporation 194
- British Museum 388
  - Natural History 383
- British Overseas Airways Corporation 234, 235–6, 237–9
- British Productivity Council .. 136, 140
- British Railways 195, 215, 216–17, 219, 220, 221–4
  - Division 219
- British Red Cross Society 320, 336, 350
- British Road Services (haulage) 219, 220
- British Scientific Office 385
- British Standards Institution 53, 136
- British Sugar Corporation 152
- British Transport Commission 215, 217–19, 220, 228, 229, 231
  - Board of Survey (waterways) .. 231
  - Boards of Management 219
  - Executives 218, 232
- British Transport Docks 215, 219, 220
- British Transport Hotels and Catering Services 219, 220, 222

Page

- British Transport Waterways 219, 220, 229–31
- British Travel and Holidays Association 310–11
- British United Press 413
- Broadcasting 283, 399–407
  - to schools 342, 405
  - *See also* Licences
- Buddhist Temple 368
- Budget 280–7
- Building:
  - capital formation 142
  - contractors' plant 192
  - educational 343–4
  - employment in 254, 255
  - industrial 129
  - industry 133
  - licensing, abolition of 352
  - local authorities 352, 353, 354
  - prefabricated buildings 192, 354
  - private 352
  - production 121, 139, 352
  - progress in new towns 360
  - reconstruction 358
  - research 353, 382
  - societies 295, 355
  - *See also* Housing
- Building Apprenticeship and Training Council 351
- Building Research Station 382
- Burghs (Scotland) 64, 65, 66, 67, 68–9, 358
- Burnham Committee 274

C

- CID, *see* Criminal Investigation Department
- Cabinet 22, 24, 38–40
  - Office 41
- Cable & Wireless Ltd. 250
- Calico Printers' Association 200
- Canals 215, 229–31
- Cancer research 369, 383
- Capital development in industry 141–2
- Capital Issues Committee 293
- Careers Advice Service 257–8
- Carnegie United Kingdom Trust 387, 389
- Catering Wages Boards 266
- Catholic Marriage Advisory Council 320
- Catholic Young Men's Society 348
- Cement industry 203, 205
- Census of Distribution 53, 314, 316
- Census of Population 6–7, 11–16, 254–5, 351
- Census of Production 53

Page

- Census of Woodlands 164–5
- Central Advisory Water Committee 184
- Central After-Care Association (prisoners) 85
- Central Council for the Care of Cripples 319
- Central Council of Physical Recreation 350
- Central Criminal Court 75–6
- Central Electricity Authority 173–4, 176–9
- Central Electricity Board 130 footnote, 173
- Central Fire Brigades Advisory Council 92
- Central Health Services Council 330, 331
- Central Institutions 345
- Central Office of Information 49
- Central Public Health Laboratory 377
- Central School of Arts and Crafts 389
- Central School of Speech Training and Dramatic Art 395
- Central Statistical Office 41
- Central Transport Consultative Committee 217–18
- Central Youth Employment Executive 260
- Chamber of Shipping 210
- Chambers of Commerce 134, 140, 310
- Chancellor of the Duchy of Lancaster 37, 78
- Chancellor of the Exchequer 36, 41, 45, 49, 52, 136, 279, 280–1
- Chancery Division (High Court) 73
- Channel Islands:
  - air services 239, 240, 243
  - area 1
  - holidays, statutory 274–5
  - horticulture 144
  - language 15
  - legislature 25, 35, 48
  - population 12
  - Press 412
  - social security 322
  - television 403, 404
  - temperature 5
  - war pensioners 47
- Chemical industries 126–7, 132, 139, 140, 142, 187, 197–8, 254, 255, 256
- Chiefs of Staff Committee 96
- Children:
  - care of 319, 328
  - employment 269
  - handicapped 338, 343
  - numbers attending school 339
  - nurseries 335
  - publications 408, 415
  - television services 405
  - welfare services 328, 334–5, 343

Page
Children—*contd.*
  See also Families, Family Allowances, Schools, *and* Youth Services
China manufacture 203, 204
Choral societies 397
Christian Scientists 367
Church Army 320
Church Assembly 365–6
Church Commissioners 365
Church in Wales (Anglican) 366
Church Lads' Brigade .. 347, 349
Church of England 364–6, 368
  appointment of clergy 22, 38, 364
  archbishops 26, 364, 365, 368
  Church Assembly 365–6
  colleges 365–6
  Ecclesiastical Courts .. 77, 364
  finance 364–5
  membership 365
  prison chaplains 84
  property 364
  relations with Monarchy .. 22, 364
  relations with State 364–5
  schools 343, 365–6
Church of England Children's Society 319, 320
Church of England Moral Welfare Council 320
Church of Ireland (Anglican) .. 366
Church of Scotland (Presbyterian) 84, 320, 366
Church of Wales (Presbyterian) .. 367
Church schools .. 343, 365–6, 367
Churches 364–8
  co-operation 368
  prison chaplains 84
  relations with Monarchy and State 22, 364–5, 366
  welfare work 84, 319, 320, 333, 347, 349
Cinemas 18, 396
Cinematograph Films Council .. 395
Citizens' Advice Bureaux 320
City of London, *see* London
Civil aviation .. 53–4, 234–46, 283
  aerodromes 235, 243–4, 245
  airmails 234, 238, 239, 248
  airports 239, 241, 243–4
  charter operations .. 236–7, 241–2
  Colonial Coach Class Services .. 237
  Corporations 137, 234, 235–6, 237–41, 242, 245
  helicopter services 241
  independent airline companies 236–7, 241–2
  international co-operation .. 242, 245
  labour relations 236

Page
Civil aviation—*contd.*
  licences 243
  ministerial powers .. 234, 236, 242–3
  navigational aids 243, 244–5
  research 195, 242, 381
  safety measures 243, 244–5, 246, 251, 275
  scheduled services 237–41
  tourist services 238, 239
  traffic control 244
  See also Aircraft
Civil Defence 65, 114–17
Civil engineering 133
Civil Service 58–62, 83, 246
  Arbitration Tribunal 269
  Commission 58, 60–1
  Royal Commission on 61 footnote
  Salaries 62, 273, 274
Clergy:
  appointment 22, 38, 364
  membership of House of Lords 26, 364
  non-membership of House of Commons 27, 364
  prison chaplains 84
  training 366
Clerk of the Justiciary (Scotland) .. 79
Climate 4–5, 143
Clothing industry 132, 139, 198–201, 254
Clyde Navigation Trust 216
Coal:
  coalfields 4, 126–8, 170
  consumers' councils 169
  exports 168, 297
  industry 168–72
  National Coal Board 169–70, 171–2
  production 170
  research 171–2
  restriction of supplies 318
  See also Mines and Quarries
Coalminers:
  earnings 271
  numbers employed 168, 170, 254, 256
  medical services 171
Coal Utilization Council .. 182–3
Coastguard Service 212
Coke production 180
Colleges:
  agricultural 160
  art 389
  Civil Defence 116
  Fire Service 94
  for adult students 345
  for disabled 261
  music 397
  police 89
  teachers' training 342, 365

Page

Colleges—*contd.*
  technical 345
  theological 366
  See also Universities
Colonial Office 37 footnote, 43–4
Colonial Research Council 383
Colonial Service *see* Oversea Civil Service
Combined Cadet Force .. 111, 349
Commissioners of Police 90
Commodity exchanges 307
Commons, Open Spaces and Footpaths Preservation Society 362
Commons, House of, *see* House of Commons
Commonwealth Agricultural Bureaux 160–1, 385
Commonwealth co-operation:
  financial and trade .. 293, 304, 305–7
  for defence 96, 101, 107, 108
  for research 160–1, 383, 384–5
  reciprocal social service agreements 322
Commonwealth Development Finance Company Limited 293, 305
Commonwealth Institute of Biological Control 385
Commonwealth Mycological and Entomological Institutes 385
Commonwealth, Queen as Head of .. 20
Commonwealth Relations Office .. 44
Commonwealth Scientific Offices 384–5
Communications, *see* Post Office *and* Transport
Community centres 348
Comptroller and Auditor General .. 279
Concert halls 396
Confectionery industries .. 201–2
Congregational Church 367
Consolidated Fund 31, 278
Consumer Consultative Councils and Committees:
    agricultural marketing schemes .. 151
    coal 169
    electricity 174
    gas 180
    Post Office 246
    transport 217–18
Consumer goods:
  distribution 314–18
  personal expenditure on .. 121–4
Contemporary Art Society 389
Contractors' plant industry 192
Controls and relaxation of controls:
  capital issues 135, 293
  consumer goods 120, 316–18
  exchange 45, 311–12

Page

Controls and relaxation of controls—*contd.*
  food 120, 149, 311, 316
  fuel 318
  import and export 45, 135, 149, 311–13
  industry 129, 135
  land use ..154, 155, 351, 356–8, 382
  price 149–50, 316–18
  raw materials .. 120, 135, 311
  recruitment of labour 257, 259–60
  rents 355–6
  siting of industry 129, 358
Convocations of Canterbury and York 365
Co-operative banks 291
Co-operative societies .. 291, 315–16
Co-operative Youth Movement .. 348
Copenhagen Agreement (broadcasting wave lengths) 401
Coronation 21, 23
Coroner's Court 72, 76–7
Corporations, public, *see* Public corporations
Cotton Board 199
Cotton industry 126–7, 199
Council for the Preservation of Rural England 362
Council of Christians and Jews .. 368
Council of Industrial Design.. .. 390
Council of Legal Education 79
Counsellors of State 24
County Agricultural Executive Committees 153, 154, 155, 159
County Borough Councils 63–4, 65, 68, 69
County Councils .. 63–4, 65, 68, 69
County Court Rule Committee .. 79
County Courts.. .. 72–3, 80 footnote
County District Councils 63–4, 65, 66, 68–9
Court of Session 74, 79
Courtauld Institute 389
Courts-martial.. .. .. 51, 77–8
Courts of Inquiry 267
Courts of Law.. .. 72–8, 80–1, 364
Courts of Quarter Session 75
Covent Garden Opera Trust.. .. 397
Criminal Appeal, Court of 76
Criminal Investigation Department 89–90
Criminal Record Office 89
Criminals, treatment of 81–8
Crofters' Commission.. .. 145, 154–5
Crown, *see* Monarchy
Crown Agents for Oversea Governments and Administrations 44
Crown Office (Scotland) 57
Crusade of Rescue 320
Currency regulations, *see* Exchange control
Customs and Excise Department 44–5, 393

Page

Customs and Excise duties 45, 280, 282, 283, 286, 393
Cutlery industry 196
Cycle and motor cycle industry .. 194

D

DSIR, *see* Scientific and Industrial Research, Department of
Dancing:
  ballet 397–8
  ballroom 18
  folk 397
Death benefit 327
Death, causes of 9
Death duty, *see* Estate duty
Death grant 326
Death rate 8–9
Death sentence 75, 81–2
Decca navigational aids 245
Defence 96–117
  Armed Forces .. 96–114, 117
  Civil 65, 114–17
  expenditure .. 97–9, 120, 124, 283, 285
  Ministry of 45, 96, 99
  supply 101–2
  US aid 97, 102, 120, 298, 300, 301, 303
Defence Bonds 290
Defence Research Policy Committee 374
Delegated legislation 32–3
Dental services .. 331, 334, 343
Dentists:
  in National Health Service 331, 332, 334
  qualifications and training .. 331, 338
Departments, *see* Government, Departments of
Derby Social Survey 17 footnote, 18, 19 footnote
Detention centres (young offenders) 82, 87
Detergents 197
Devaluation of sterling 300
Development areas .. 126, 128–9, 358
Development charges 357
Development Commission 129, 163, 373, 381
Development Corporations of New Towns 359–60
Development Councils (in industry) 136
Development Fund 373, 381
Diocesan Conferences 365
Dioceses (Church of England) .. 365
Diphtheria immunization 337
Director of Public Prosecutions 50, 91
Disablement:
  benefit 326–7
  employment of disabled .. 260–2

Page

Disablement—*contd.*
  pensions (war) 328
  rehabilitation .. 258, 261, 333
Disablement Resettlement Service 260–2
Discharged Prisoners' Aid Societies 84–5
Discount market 291
District Councils .. 63–4, 65, 66, 67–9
Dock and Harbour Authorities' Association 214
Dock workers 215, 216, 271
Docks 215–16, 219, 220
Docks and Inland Waterways Board of Management 219
Dockyards, naval .. 58, 102, 105
Doctor Barnardo's Homes 319
Doctors:
  in National Health Service 331, 332, 334
  qualifications and training .. 331, 338
Domestic service 16, 17, 255, 256, 259, 336
Drama 393–5
Duchy of Lancaster .. 37 footnote
Dyestuffs industry 197

E

Eady Fund 396
Earnings, average 120, 271–3
Ecclesiastical Committee 365
Ecclesiastical Courts 77, 364
Economy, national 118–24
  See also Balance of payments *and* Finance
Edinburgh International Festival of Music and Drama 397
Education 338–48
  adult 344–5
  agricultural 160–1
  art 389
  building for 343
  examinations 341–2
  finance 283, 338–9, 340, 341, 346–7
  forestry 166
  grants and scholarships 344, 346–7
  Ministry of 45, 388
  prisoners 84
  schools 339–44, 365, 367
  teachers 342, 365
  technical 345–6
  technological .. 345–6, 370–1
  university 344, 370–1
Eisteddfod 393, 397
Elections:
  Local Government 48, 65–6
  Parliamentary .. 26–7, 28–9, 48
Electrical engineering industry 142, 193
Electrical Supply Research Council .. 179

Page
Electricity Board for Northern Ireland 130 footnote, 175
Electricity supply .. 126–7, 139, 173–9
Electronics industry 193
Emigration 9–10
Employers' organizations 134, 136, 210, 263–4
Employment 252–6
  agricultural 118, 142, 253, 254, 255, 256
  Armed Forces 100, 253
  broadcasting.. 400
  children 269
  Civil Service .. 58–62, 83, 254
  civil, statistics .. 10, 131, 253–6
  domestics 16, 17, 255, 256, 259, 260, 336
  disabled persons 260–2
  distributive trades 254, 256, 315, 317
  earnings 120, 271–4
  exchanges and offices 257
  foreigners 259–60
  hours of work 62, 269, 270, 271, 274
  manufacturing industries 131–3, 195, 201, 203, 254, 255, 256
  Merchant Navy .. 211, 213–14
  older workers 252, 258
  ports.. .. .. .. 215, 216
  prisoners 83–4
  private enterprise 131
  public undertakings 131
  railways 222
  services (Ministry of Labour) 256–62
  terms and conditions of 213–14, 236, 262–3
  training centres 258
  trends in 120, 140, 254–6
  welfare and safety 214, 236, 262–3, 269–71, 275–6
  women 58, 252–6, 270, 271, 272, 274
  young persons .. 260, 270, 271, 274
  See also individual industries, Labour, *and* Unemployment
Engineering .. 126–7, 132, 139, 142, 296–7
  civil 133
  electrical 193
  marine 189–90
  mechanical 159, 190–3
England:
  area 1
  counties .. .. 1, fold-in map
  population 11–14
English Association 393
English Folk Dance and Song Society 397
English Opera Group.. 398
Episcopal Church in Scotland .. 366
Equal pay 274

Page
Estate duty 49, 280, 282, 284, 286, 287
Estimates .. 34, 97, 99, 278–80, 283
  Select Committee on 280
European Payments Union 118, 307, 312
European Recovery Programme 300
European Volunteer Workers scheme 260
Eurovision services 405
Evidence, Law of 72
Excess Profits Levy 282, 284
Exchange control 311–12
Exchange Equalization Account 289, 304
Exchange Telegraph Company Ltd. 403
Exchequer Account 278, 279
Excise duties .. 44–5, 280, 283, 286
Expenditure:
  government 99, 124, 278, 282–3, 285, 286–7, 386
  personal 120, 121–4
Export Credits Guarantee Department 309
Exports 119, 120, 121, 122, 296–300, 307
  controls 313
  Government assistance to traders 308–9
  re-exports 307
  See also individual industries

F

Factories:
  employment in 131–3, 254
  fatal accidents in 275
  health and welfare in 262–3, 270, 275–6
  in Development Areas 129
  in new towns 360
  inspection .. 262, 270, 271, 275
  joint consultation in 268
  personnel management .. 268, 278
  safety measures .. 262–3, 270, 275
Families, average size of .. 9, 11
  See also Households
Family Allowances 322–3
Family Welfare Association 319
Farm Institutes 160
Farming, *see* Agriculture
Federation of British Industries 134, 140, 310, 371
Federation of Rhodesia and Nyasaland 44
Fertilizers 152, 198
Festivals, *see* Music Festivals *and* Edinburgh Festival
'Fibrolane' 200
Films 395–6
Finance.. 277–95
  aid from oversea countries 97, 120, 298, 300, 301, 303
  aid to oversea countries .. 305–6
  Appropriation .. 31, 277, 278, 279

Page

Finance—*contd.*
  Bills 30, 31, 278, 281
  Exchequer 99, 277–87
  local government 68–9, 124, 277, 287
  Ministry of, Northern Ireland 57, 288–9
  national income and expenditure 97–9, 121–4, 282–8
  oversea investment 119, 305–6
  parliamentary control 31, 277–81
  public corporations 137
  sterling, devaluation of 300
  Vote system 278–9
  See also Balance of payments, Estimates, Exchange control, Sterling area *and* Taxation
Finance Corporation for Industry 292
Finance corporations 291–3
Fire Offices' Committee 94
Fire Service 92–5
Fire Service Tactical Training Centre 117
  See also Auxiliary Fire Service
Fishing industry 161–4
Fishing ports 162
Fleet Air Arm 104
Floods 4, 143
Food:
  imports 145, 296, 311
  processing 43, 126–7, 201–2
  production 145–8
  rationing, end of 149, 316
  research 381
  State and private trading 148–51, 311
  subsidies 152–3
  See also Agriculture, School Meals Service, *and* Welfare Foods Service
Football Association 17
Foreign Exchange Market 312
Foreign Office 37 footnote, 46
Foreign Service 46, 60
Foreigners, employment of 259–60
Forestry 164–8
  Commission 46, 166, 373
  education and research 166, 373, 375 footnote, 382
  forest parks 167–8
  Fund 166, 167
Free Church Federal Council 368
Free Churches 367, 368
Friendly and Collecting Societies 294
Friends, Society of 367
Fuel:
  control of consumption 318
  efficiency 182–3
  research 182, 382
  See also Coal

Page

Fuel and Power, Ministry of 46–7, 135, 171, 175, 318, 382

G

GPO, *see* Post Office
Gas by-products 181
Gas Council 180, 181–2
Gas supply 139, 142, 179–83
General Certificate of Education 341–2
General Council of British Shipping 210
General Council of the Bar 79
General Council of the Press 414–15
General Election, *see* Elections, Parliamentary
General Medical Council 77
General Post Office, *see* Post Office
General Medical Services, *see* National Health Service
General Register and Record Office of Shipping and Seamen 211
General Register Office 47, 383
General Registry Office, Edinburgh 6 footnote, 56–7
Geological Museum 186, 384
Geological Survey 186, 373, 383
George Newnes (publishing group) 411
Georgian Group 391
Girl Guides Association 347, 348–9
Girls' Friendly Society 347
Girls' Life Brigade 349
Girls' Nautical Training Corps 349
Girls' Training Corps 349
Glasgow, port of 214, 215
Glass Delegation, Sheffield University 371
Glass Industry 126–7, 203, 205
Gold and dollar reserves 119, 302–5
Gold and silver wares 205–6
Gold Market (London) 304, 312
Goldsmiths' Company 206
Government:
  Departments of 36, 38, 40–58, 134–5
  Ministerial 36–40
  See also Finance, Local Government, Parliament, *and* Privy Council
Government Chemist, Department of 276, 373, 382
Granada T.V. Network Ltd. 407
Grangemouth, port of 215
Great Britain:
  area and composition of 1
  population of 12
  See also British Isles
Great Northern Railway Board (Northern Ireland) 233
Great Seal 22, 25, 35, 51

Page
Greenwich (Royal Observatory) .. 1, 373, 381
Grids, electricity 178
Grids, gas 182
Guardian's Allowance 325
Guernsey, *see* Channel Islands
Guided missiles 102, 112
Guild of British Newspaper Editors 414

H

HMSO, *see* Stationery Office
Habeas Corpus 70
Haldane Committee .. 38 footnote
Hall-mark (gold and silver) 205
Handtools industry 196
'Hansard' 30
Harmsworth Press Group 410
Harwell Atomic Energy Research Establishment .. 198, 379–80
Health:
  air pollution, prevention of .. 168
  centres 337
  in industry 171, 275–6
  Ministry of 47, 135, 163, 329–31, 383
  research 275–6, 331, 369, 376–9, 383, 386
  sanitation .. 64, 184, 269–70, 329
  school children 343
  visiting 335–6
  See also National Health Service
Helicopter services 241
Herring Industry Advisory Council .. 163
Herring Industry Board 163
High Court of Justice 73, 75, 76, 77, 78
High Court of Justiciary (Scotland) 76, 79
Highway Code 229
Historic Buildings Bureau 390
Historic Buildings Councils .. 362, 390
Historic Churches Preservation Trust 391
Hobbies 18
Holidays 17, 266, 274–5
Hollow-ware industry .. 195, 196
Home Defence 114–17
Home Guard 111, 117
Home Office 47–8
Home Secretary 47–8, 78, 79, 82, 88, 92, 115
Hops Marketing Board 151
Horticultural Institutes 160
Horticulture 143–4
Hospital Car Service 336
Hospitals 330, 331, 332–3, 337, 338
  administration .. 330, 331, 337
  finance 332
  mental .. 331 footnote, 332, 336

Page
Hospitals—*contd.*
  Northern Ireland 337
  number 333, 337
  Scotland 331–2, 333
  specialist services .. 329, 332–3
  staff 332, 333
  teaching 331, 332, 333
  voluntary 329, 333
House of Commons .. 26–7, 31, 37, 40
  Committee of Selection 31
  Committee of Supply .. 34, 278
  financial control 31, 277–81
  officers 27, 29
  Parliamentary and Scientific Committee 384
  party composition 28–9
  privileges 27
  Select Committee on Estimates 32, 280
  Select Committee on Public Accounts 32, 279
  Whips 27, 29, 41
House of Lords 26, 28, 31–2, 37, 277–8, 365
  as Court of Appeal 73–4, 76
  officers 26, 29–30
  privileges 28
Households 15–16, 351–2
Housewives 17, 252
Housing 351–6
  Associations 353
  costs 354
  investment 142
  Local Authorities' responsibilities 353
  Ministerial responsibilities .. 48–9, 351
  number of dwellings 351
  progress in building .. 352, 360
  purchase schemes 355
  rent control 355–6
  repairs 133, 352–3, 356
  Self-Help Groups 353
  slum clearance 352–3
  standards 354
  subsidies 354–5
  types of houses 15–16, 354
  See also Building
Housing and Local Government, Ministry of .. 48–9, 135, 351, 361
Hull, port of 162, 214, 215, 229
Hulton Press Ltd. 411
Human Relations in Industry, Committee on 276

I

Immigration 6, 9–10
Immunization 337

Page
Imperial Cancer Research Fund .. 369
Imperial Chemical Industries Ltd. 200, 371
Imperial College of Science and Technology 370, 373
Imperial Defence College 101
Imperial Forestry Institute 382
Imperial Institute 45–6
Imperial War Graves Commission 328–9
Imperial War Museum 388
Import Duties Advisory Committee 188
Imports.. .. .. 120, 296–300
  control of 311, 312–13
  See also Food *and* Raw materials
Income:
  Government.. .. 124, 280, 283–7
  national 121–4
  personal 122–3
Income Tax 49, 123, 280, 282, 284, 286
Independent Television Authority 399, 400, 406–7
  programme companies .. 406, 407
Independent Television News Ltd .. 407
Indictable offences 71
Individual Efficiency in Industry, Committee on 276
Industrial and Commercial Finance Corporation Ltd. 292
Industrial Court 267
Industrial Disputes Tribunal .. 267
Industrial Estate Companies 129
Industrial Grants Committee (DSIR) 372
Industrial Health and Safety Centre .. 275
Industrial injuries insurance 324, 326–7
Industry 125–207
  associations 133–4
  capital development .. 141–2
  controls 129, 135
  design in 389, 390
  development areas .. 126, 128–9, 358
  development councils 136
  distribution policy 128–9, 358
  health and welfare services 275–6
  human relations in 141, 276
  location 125–8
  management 140–1
  manufacturing 131–3, 139, 142, 186–207, 254, 255, 265
  mining and quarrying 131, 139, 142
  organization 125–38
  production 120, 138–40, 141
  productivity 135, 138–40
  Regional Boards 136
  relations with Government 134–7, 266–8
  safety regulations .. 263, 270, 271
  technical advisory services 136

Page
Industry—*contd.*
  trading estates 129
  See also Employment, individual industries, Labour, Nationalization, *and* Research
Infectious diseases:
  control of 336–7
  mortality from 9
Information, Central Office of .. 49
Injury benefit (industrial injuries) .. 326
Inland Revenue:
  Board of 49, 68, 280
  sources of 124, 280, 283–7
Inland transport, *see* Transport
Inland waterways 229–31
Inns of Court 79
Inspection duties of local authorities 64
Inspectors of
  constabulary.. 89
  factories .. 60, 262, 270, 271, 275
  fire services 92
  mines and quarries .. 171, 270, 275
  prisons 82
  sanitation 67
  schools 45, 339
  taxes 60
Institute of Biology 369
Institute of Contemporary Arts .. 389
Institute of Journalists .. 414, 415
Institute of Physics 369
Institution of Civil Engineers .. 369
Institution of Electrical Engineers .. 369
Institution of Mechanical Engineers 369
Institution of Metallurgists 369
Insurance 294–5
  export credit guarantees .. 309–10
  marine 210, 294
  motor vehicles 227
  See also National Insurance
International Aeradio Ltd. 245
International Civil Aviation Organization 242
International Labour Organization 50, 258, 264
International Radio Exchange .. 250
International Telecommunications Union 251
International Whaling Commission .. 164
Investment trusts 294
Ireland, Churches .. 366, 367, 368
Ireland, Northern *see* Northern Ireland
Ireland, Republic of .. 1, 20 footnote
  air service 239
  census 6–7, 12
  citizens' voting rights in UK 27, 65
  insurance reciprocity 322

Page

Ireland, Republic of—*contd.*
  population 12
  relations with UK Government .. 44
  visitors from Britain 17
  war pensioners 47, 52
Iron and Steel Board 188
Iron and Steel Holding and Realization Agency 188
Iron and steel industry 126–7, 131, 142, 187–8
Isle of Man:
  air services 239, 240, 243
  area 1
  language 15
  legislature 25, 48
  national insurance 322, 323
  population 12
  Press 412
  television 403, 404
  war pensioners 47
Isotope School (Harwell) 380
Isotopes, radioactive 198, 380

J

Jersey, *see* Channel Islands
Jewellery industry 205–6
Jewish Board of Guardians 320
Jewry 368
Joint consultation in industry 265–9
Joint Fire Research Organization .. 94
Joint Industrial Councils 265–6, 267
Joint Intelligence Bureau 101
Joint Services Staff College 101
Journalists 413–14
Judge Advocate General's Department 51
Judicial Committee of the Privy Council 36, 364
Judiciary 22, 37, 73, 78–9
Jury, trial by 71–2, 75, 77, 85
Justices of the Peace .. 74, 78, 79, 88
Justice of the Peace Courts 76
Jute industry 126–7, 200
Juvenile Courts .. 75, 85, 415
Juvenile delinquency, *see* Young offenders

K

Kemsley Newspapers Ltd. .. 410, 414
Kew Gardens 43, 383
King George VI Memorial Fund 320, 348

L

Labour:
  conciliation in disputes .. 266–7

Page

Labour—*contd.*
  deployment of 253–6
  industrial relations 141, 170–1, 174, 180, 236, 263–9
  protective legislation 262–3, 269–71
  working conditions 171, 262–3, 269–76
  See also Employment, Trade Unions, Wages *and* Work, hours of
Labour and National Service, Ministry of 48–9, 100, 256–62, 266–9, 270, 271, 275, 276
Lambeth Conference 366
Land Registry 51
Land Settlement Association Ltd. .. 144
Land use:
  agriculture 142–6, 155, 351
  Armed Forces 351
  town and country planning 351, 356–63, 382
Lands Improvement Company .. 157
Lands Tribunal 51, 68, 77
Language 6, 15
Law, *see* Legal system
Law Officers' Department 50
Law Officers of the Crown 37, 50, 57, 79
Law Reform Committee 79
Law Society 77, 79–80
Learned societies 369–70
Leather industry .. 126–7, 132, 206
Lee Conservancy Board .. 184, 186
Legal Aid Fund 80
Legal system 69–81, 415
  courts 72–8, 364
  criminal justice 70–1
  equity 70, 73
  judiciary 22, 37, 78–9
  legal aid 80–1, 327
  legal profession 79–80, 81
  sources of law 69–70
  subjects' right of appeal to the Crown 36, 48
Leisure activities 16–19, 347–50, 387–9, 391–8
Libraries 84, 370, 391–2
Library Association 392
Licences:
  aircrews and aircraft 243
  broadcast receiving 18, 283, 399, 400, 404 footnote
  driving 227, 229
  export 313
  fuel 318
  house-building, abolition of .. 352
  import 312–13
  issue of, by Post Office 251
  livestock breeding 157–8

Page

Licences—*contd.*
  milk (special designations) .. 158
  motor vehicles 18 footnote, 216, 227, 229, 232 footnote
  road transport (carriers) .. 227–8
Licensing Authorities for Public Service Vehicles 227
Lifeboats 212
Lighthouses 212
Linen industry .. 126–7, 200, 256
Linen Industry Research Association 200
Lister Institute of Preventive Medicine 369
Literary prizes.. 391
Literary societies 393
Literature 391–3
Liverpool, port of .. 128, 210, 214, 215
  Employers' Association 210
Liverpool Cotton Exchange 307
Liverpool Steamship Owners' Association 210
Livestock 146, 148, 149, 150, 152, 157–9
Lloyd's.. .. .. .. 210, 294–5
Lloyd's Register of Shipping .. 210
Loans and gifts:
  by Britain to other countries 102, 305–6
  to Britain 97, 102, 120, 298, 300, 301, 303
Local Appeal Tribunals 77
Local Government 62–9
  authorities, types of 63–4
  education authorities 339, 342, 343, 344
  elections 48, 65–6
  employment in 67–8, 254
  finance .. 68–9, 124, 277, 287
  fire services 65, 92–5
  health services .. 168, 331, 334–7
  housing 133, 353, 354
  internal organization 66–7
  police services 65, 88, 89
  regulation of working conditions .. 269
  relations with Central Government 48, 63
  responsibilities for mental defectives 336
  services 64–5
  town and country planning 357–8, 361
  water supply services 184
Locomotives:
  industry 126–7, 195
  types on British Railways 222
London:
  airports 241, 243–4
  art colleges 389
  art galleries 387–8
  as financial and trading centre 289, 291, 292, 293, 294, 307, 308, 312
  City of London Corporation 64, 65, 68, 353
  civil defence.. 65

Page

London—*contd.*
  concert halls.. 396
  courts of law 73, 75
  industries 125
  libraries 391, 392
  local authorities 64
  markets ..162, 291, 294–5, 307, 312
  museums 383–4, 387–8
  music colleges 397
  newspapers 408, 409–10, 411
  police forces.. .. 65, 88, 89, 90
  population 13, 14
  port of 214, 216, 231
  rebuilding of war damaged areas .. 358
  research units .. 376–7 footnote
  Stock Exchange 293
  taxicabs 232
  teaching hospitals 333
  television 403, 404, 407
  theatres 394, 398
  transport 231–3
  University .. 344, 370, 389, 392
  water supply 184
London Children's Theatre 394
London County Council 64, 66, 353
'London Gazette' 35
London General Shipowners' Society 210
London Gold Market.. 312
London Group 389
London Metal Exchange 307
London Rubber Market 307
London Transport Executive 218, 219, 220, 231–3
London Wool Exchange 307
Lord Advocate (Scotland) .. 37, 57, 79
Lord Advocate's Department .. 57
Lord Chancellor 22, 26, 36, 37, 38 footnote, 50–1, 73, 74, 75, 78, 365
  as Speaker of the House of Lords 26, 29–30
Lord Chancellor's Department ..50–1
Lord Chief Justice 38, 73, 76
Lord High Commissioner 366
Lord Justice Clerk (Scotland) 74, 76, 79
Lord President of the Council 35, 37, 52, 55, 374, 375, 379
Lord President of the Court of Session (Scotland) 74, 76, 79
Lords, House of, *see* House of Lords
Lords-Lieutenant of Counties 38, 75
Lords of Appeal in Ordinary.. 36, 74

M

Magistrates' courts .. 74–5, 79, 81
Malting industry 202

Page
Manchester, port of 215, 216
Manchester Ship Canal 215, 229, 230
Manchester Ship Canal Company .. 216
Manpower, *see* Employment
Manufacturing establishments, size of 131–3
Manufacturing industries 121, 131–3, 139, 142, 186–207, 254, 255, 256
Marine insurance 210, 294
Markets:
  commodity 307
  financial 291, 294–5, 312
Marketing boards, agricultural 148–9, 151
Mass radiography 337
Maternity:
  benefit 325
  services 334–5
Mayor's and City of London Court .. 73
Medical Practices Committee .. 334
Medical profession, *see* Doctors
Medical research 171, 275–6, 331, 369, 376–7, 382–3, 386
Medical Research Council 276, 374, 376–7, 386
Medical services:
  in coalmines 171
  for ships 251
  general practitioners' 334
Mental health services .. 331, 336
Merchant Navy 106, 210, 211, 212–14
  training 212–13
Merchant Navy Established Service Scheme 210, 213
Merchant Navy Establishment Administration 210
Merchant Navy Training Board 212–13
Merchant Navy Welfare Board .. 214
Merchant Shipping 208–12
Mersey Docks and Harbour Board .. 216
Metals and metal-using industries 126–7, 132, 139, 187–9, 195–6
Meteorological Office 43, 186, 373, 381
Methodist Association of Youth Clubs 348
Methodist Church 367
Metropolitan Borough Councils 64, 353
Metropolitan Police Force .. 88, 89–90
Metropolitan Water Board 184
Middlesbrough, port of .. 214, 215
Midwives 334–5
Military courts 51, 77–8
Milk:
  for children and mothers 335
  in schools 343
  marketing 151
  prices and subsidy 150, 151, 152, 158
  production 148
  tuberculin tested 158

Page
Mines and quarries:
  employment statistics .. 254, 255
  fatal accidents 275
  industry 121, 131, 139, 142
  Inspectorate 171, 270, 275
  safety measures .. 171, 270, 275
Ministers (of the Crown) .. 31, 36–40
  of State 37
  ministerial responsibility 22, 33, 35, 39–40
  See also Prime Minister *and* individual Departments
Ministries, *see* Government Departments
Mobile Defence Corps 117
Moderator of the Church of Scotland 366
Monarchy 20–4
  accession 21, 23, 25
  ceremonial 24
  coronation 21, 23
  powers and functions 22, 24, 31, 39, 78, 364
  relations with Churches 22, 364, 366
  relations with Courts of Law 36, 78
  relations with Ministers 22, 28, 37, 39, 48
  relations with Parliament 22, 24, 25, 26, 27–8, 31, 277
  relations with Privy Council .. 35
  representation in the Commonwealth 20
  Royal Prerogatives 21, 22, 25 footnote, 30, 35, 48, 82
  Royal Proclamations .. 22, 25, 35
  Royal titles 20
  subjects' right of appeal to Crown 36, 48
  succession 21, 23
  See also Royal Family
Monopolies and Restrictive Practices Commission 137–8
Mortality, *see* Death, causes of
Moslem community 368
Mosques 368
Motor Industry Research Association 194
Motor vehicles:
  industry 126–71, 193–4
  numbers licensed 18 footnote, 216, 227, 228, 229, 232 footnote
  research 194
  taxation 280, 283
  See also Road transport
Museum of English Rural Life .. 161
Museums 38, 45, 56, 161, 383–4, 387–9
  Commission on 386
Museums Association 389
Music 396–7
Music festivals 397
Mutual Security Programme (defence) 102

Page

N

National Advisory Committee on the Employment of Older Men and Women 258
National Agricultural Advisory Service 156
National Assembly, *see* Church Assembly
National Assistance 327–8
National Assistance Board. 51, 319, 327–8
National Association for Mental Health 320
National Association of Boys' Clubs .. 349
National Association of Discharged Prisoners' Aid Societies 85
National Association of Mixed Clubs and Girls' Clubs 349
National Association of Prison Visitors 84
National Blood Transfusion Service .. 333
National Book League .. 392, 393
National Buildings Record 390
National Central Library 392
National Certificates 345, 346
National Coal Board 169–72
  medical services 171
  research 171–2
National Corporation for the Care of Old People 320
National Council for Domestic Food Production 144
National Council of Associated Children's Homes 319
National Council of Social Service 319, 320
National Debt 278, 283, 287
  Commissioners 290
National Dock Labour Board .. 216
National Economy, *see* Economy, national
National Farmers' Union 143
National Federation of Community Associations 348
National Federation of Music Societies 397
National Federation of Women's Institutes 161
National Federation of Young Farmers' Clubs 161, 349
National Film Archive 396
National Film Finance Corporation 293, 395–6
National Film Theatre 396
National Forest Parks 167–8
National Gallery 388
National Gas Turbine Establishment 195, 381
National Health Service .. 329–37
  administration 329–32
  charges 332
  finance 124, 283, 332

Page

National Health Service—*contd.*
  general medical services 334
  hospital services 332–3
  local health services .. 334–7
  mental health services .. 331, 336
  Northern Ireland 58, 337
  Scotland 56, 331–2
  specialist services 332
National Hospital Service Reserve 115, 116
National Income 121–4
National Industrial Fuel Efficiency Service 183
National Institute for Medical Research 376
National Institute of Agricultural Engineering 159
National Institute of Oceanography .. 381
National Insurance 323–7
  benefits 324–7
  contributions 124, 323–4
  contributors 323
  finance 124, 277, 323–4
  Ministry of Pensions and 51–2
  reciprocal agreements 322
  supplementation by private firms .. 275
National Insurance Fund .. 277, 332
National Joint Advisory Council (industry) 136, 267
National Joint Council for Chief Officers of Local Authorities' Fire Brigades 92
National Joint Council for Civil Air Transport 236
National Joint Council for Local Authorities Fire Brigades 92
National Library for the Blind .. 392
National Maritime Board .. 210–11
National Maritime Museum, Greenwich 388
National Marriage Guidance Council 320
National Old People's Welfare Council 320
National Parks 360–1
  See also National Forest Parks
National Parks Commission 360
National Physical Laboratory 195, 373, 375
National Playing Fields Association .. 350
National Portrait Gallery 388
National Production Advisory Council on Industry 136
National Research Development Corporation 372
National Savings Certificates .. 251, 290
National Savings Committee 290
National Sea Training Schools 210, 213
National Service in Armed Forces 97, 100, 101, 109, 110, 111, 114, 117

Page
National Society of Operative Printers and Assistants (NATSOPA) .. 414
National Trust for England and Wales and Northern Ireland .. 362, 391
National Trust for Scotland 362, 391
National Union of Journalists 414, 415
National Union of Manufacturers 134, 140
National Youth Employment Council 260
National Youth Orchestra 397
Nationalization 130–1, 136–7
  air corporations 235–6
  Bank of England 288
  cable and wireless services 250
  coal industry 168–9
  electricity supply 173–4
  gas supply 180
  inland transport 217–19
  Select Committee on Nationalized Industries 137
Nature Conservancy .. 361, 379, 386
Nature Reserves 361
Naval Helicopter Squadron 104
Navy, *see* Merchant Navy *and* Royal Navy
Navy League 106
New towns 359–60
News agencies 413
Newspaper owners' associations 410–11, 414
Newspapers 408–12
Newsprint, supply of 207, 408
North Atlantic Treaty Organization (NATO) 43, 97, 102, 104, 107, 108, 112
North of England Shipowners' Association 210
North of Scotland Hydro-Electric Board 175, 178, 179
Northcliffe Newspapers Group Ltd. 410
Northern Ireland:
  agricultural research .. 160, 381
  Agricultural Research Institute .. 160
  agriculture 143, 149, 151, 153, 154, 157, 158, 256
  Agriculture, Ministry of 57, 149, 153, 157, 158, 160, 167
  airport 240, 244
  area 1
  art gallery 388
  arts, encouragement of 386
  banks 289
  broadcasting 401, 403, 404, 406
  censuses 7, 12
  Churches 366, 367
  Civil defence, responsibility for .. 115
  Commerce, Ministry of 57, 163, 225
  courts of law 76

Page
Northern Ireland—*contd.*
  Education, Ministry of 57, 339, 346, 347, 350
  elections 66
  electricity .. 130 footnote, 175, 176, 178
  employment 120, 256, 259, 271
  family allowances 323
  finance 69, 283, 287–8
  Finance, Ministry of 57
  fire services 94–5
  fisheries 162, 163, 164
  forestry 167–8
  gas supply 180, 181
  Government Departments 57–8
  Health and Local Government, Ministry of .. 58, 183, 351, 362
  Health Service 58, 337–8
  holidays, statutory 274–5
  Home Affairs, Ministry of 57, 83, 86, 91
  Hospitals Authority .. 337, 383
  housing 351, 352, 353, 354, 355, 356
  industrial development .. 129, 136
  industrial welfare legislation .. 271
  industries 126, 128, 170, 189, 200, 256
  Labour and National Insurance, Ministry of .. 58, 269, 271
  labour relations 269
  legal aid 81
  local authorities 64, 66, 69, 328, 353
  milk 158
  museums 388
  National Insurance and Assistance 58, 321, 322, 328
  Parliament 34, 57, 76, 129
  Parliamentary Counsel, Office of .. 57
  police 88, 91
  population 9, 11, 12, 13, 14
  ports 162, 214, 215
  Press 408, 412, 413
  prison system 83, 84
  probation 87
  production council 136
  railways 233
  relations with UK Government 34, 48
  research 160, 381, 383
  roads 225, 226
  scholarships 346, 347
  schools .. 339, 340, 342, 343, 346
  shipbuilding 128, 189
  teachers' training colleges 342
  technical education 346
  town and country planning 351, 362–3
  transport .. .. 130 footnote, 233
  university 160, 344

Page

Northern Ireland—*contd.*
  war pensioners 52
  water supply 183, 185
  welfare services 328
  Women's Rural Institutes 161
  working population.. 256
  Young Farmers' Clubs 161
  young offenders, treatment of 85, 86
  Youth Employment Service .. 260
  Youth hostels 350
Northern Ireland Fire Authority 94, 95
Northern Ireland Housing Trust 352, 353
Northern Ireland Joint Electricity Committee 175
Northern Ireland Road Fund .. 226
Northern Ireland Tuberculosis Authority 337
Nuclear energy, *see* Atomic energy
Nuffield Foundation .. 320, 369, 371
Nurseries 335
Nursing .. 255, 333, 335–6, 338
  Appointments Offices 257
  in Armed Forces 110
  in Civil Defence 115, 116
Nylon industry 200

O

OEEC, *see* Organization for European Economic Co-operation
Odhams Press 409, 410, 411
Offenders, treatment of 81–8
Office equipment industry 192
Oil:
  prevention of sea pollution 211–12
  See also Petroleum
Old age pensions, *see* Pensions
Old Bailey 75
Old People:
  proportion in population 10
  welfare .. 319, 320, 328, 336
  in work 252, 258
  See also Pensions
Old Vic Theatre and School 393, 394, 395
Opera companies 397–8
Ophthalmic services 330, 331, 332, 334
Opposition, parliamentary 28, 29, 30, 34
Orchestras 396–7
Orders-in-Council .. 22, 32, 33, 35
Ordnance factories .. 53, 58, 102, 131
Ordnance Survey Department 43, 383
Organization for European Economic Co-operation 43, 118, 298, 299, 302, 313
Outward Bound Trust 349
Oversea Civil Service 43, 44
Oversea investment .. 119, 305–6

Page

Oversea telecommunications .. 250–1
Overseas Liaison Division of DSIR.. 385
Overseas Scientific Relations, Standing Committee on 374, 385

P

PAYE (income tax scheme) 286
Paper and board industry 126–7, 206–7
Parish Councils .. 63, 64, 66, 67
Parish Meetings 63, 64
Parishes (Church of England) .. 365
Parliament 24–34
  Committees .. 31, 32, 278–80, 384
  control of:
    Armed Forces 96
    finance 31, 277–81
    Government in power 33–4, 39–40
    local authorities 63
    public corporations 130, 136–7, 236
  delegated legislation 32–3
  dissolution of 25, 38
  Ecclesiastical Committee 365
  election to 27, 28–9, 48
  functions and powers 24–5, 26, 30–2, 33–4
  legislation 24, 30–2
  meeting of 25–6
  Northern Ireland 34
  party system 28–9
  privileges 27–8
  procedure 29–30, 33–4
  questions to Ministers .. 33, 37, 40
  relations with Church of England 364–5
  relations with Monarchy 22, 24, 25, 26, 27–8, 31, 277
  relations with scientific bodies .. 384
  secret sessions 27
  sessions 25–6
  Speakers .. 26, 27, 29–30, 34, 365
  structure 24, 26–7
Parliamentary Boundary Commissions 27
Parliamentary and Scientific Committee 384
Parliamentary Counsel, Office of 42, 57
Parliamentary Secretaries 37, 40, 41, 53, 54, 55
Parochial Church Councils 366
Party system, parliamentary 28–9
Passports 46, 50
Paymaster-General's Department .. 51
Peers 22, 26, 28, 48
Pensions:
  appeal tribunals 51, 77
  Ministry of, and National Insurance 51–2, 321, 328

Page
Pensions—*contd.*
  old age 321, 322, 327
  retirement 325–6
  war 51–2, 321, 328
  widows 325, 327, 328
Periodicals 411, 412–13
Personnel management .. 268, 276
Personnel Management Advisory
  Service 136, 268, 276
Pesticides 198
Petroleum 172–3
  consumption 172
  equipment industry .. 192–3
  exports and imports .. 173, 297
  production, crude 172
  refining industry .. 126–7, 142, 173
Petty Sessional Courts .. 74–5, 79
Pharmaceuticals 198
Pharmacists 331, 332, 334, 338
Pilgrim Trust 387
Pilotage 212
Planning, town and country 49, 65, 129,
  351, 356–63, 382
Plastics 197–8
Playing fields, provision of .. 64, 350
Poetry Book Society 393
Poetry Society 393
Poles, resettlement 259, 327
Police Cadets 91
Police Council of Great Britain 89, 90
Police Federation 90
Police service 65, 88–91
  See also Special Constabulary
Political party system 28–9, 401
Political Party Youth Groups .. 350
Political tendencies (newspapers) 409–10
Pollution, prevention of:
  air 168
  rivers 186
  sea (by oil) 211–12
Population 6–16
  age groups 7, 10
  birth rate 8–9, 10, 11
  census .. 6–7, 11–16, 254–5, 351
  death rate 8–9, 10
  density 8, 118
  households 15–16, 351–2
  increase in 6, 7–8, 12
  language 6, 15
  migration 9–10
  mortality, causes of decline in .. 9
  new towns 360
  racial composition 6, 9–10
  regional distribution .. 11–14
  Royal Commission on 11
  sex ratio 10

Page
Population—*contd.*
  social organization 15–16
  urbanization .. 11, 13–14, 118, 351, 356
  working 125, 252–3, 256
Port of London Authority 216
Port Welfare Committees 214
Ports 214–16, 229, 231
  fishing 162
Post Office 52, 131, 246–51, 382, 399, 400
  agency services 251
  Cable and Wireless Services 250–1
Post Office Advisory Council .. 246
Post Office Board 246
Post Office Savings Bank 52, 251, 290
Postage rates 247–8
Postal services 246–8
Postmaster-General 52, 246, 248, 399,
  401 footnote, 405, 406, 407
Potato Marketing Scheme 151
Pottery industry 126–7, 204
Prefabricated buildings industry 192, 354
Presbyterian Churches .. 366, 367
Pre-Service organizations 106, 111, 114,
  349
Press 408–15
Press Association Ltd. 413
Price control .. 53, 149–50, 316–18
Prices, retail 120, 272
Prime Minister 28, 29, 35, 36, 37–8, 39,
  41, 78, 399
Principal Clerk of Session (Scotland) 79
Prison Commission 82, 83, 84
Prison system 82–5
Private International Law Committee 79
Privy Council 21, 22, 25, 34–6, 38, 39
  Committees 35, 36, 364, 374
  Office 35–6
Probate, Divorce and Admiralty Division (High Court) 73
Probation 87–8
Procurator Fiscal 77
Production, industrial 120, 138–40, 141
  See also individual industries
Production Departments 134–5, 137
Productivity 135–6, 138–40
Professions:
  architectural 391
  dental .. 331, 332, 334, 338
  legal 79–80, 81
  medical .. 331, 332, 334, 338
  teaching 342
Profits tax 49, 280, 282, 284
Provincial Agricultural Economics
  Service 160
Provincial Newspapers Ltd. 410
Psychiatric social workers 333

Page
Public Accounts, Select Committee on 279–80
Public corporations 130–1, 136–7, 269, 275
  See also Nationalization
Public Health Laboratory Service 337, 377
Public houses 18
Public Libraries 392
Public Record Office 392
Public rights of way 361
Public schools 340, 341
Public Trustee Office 51
Public Works Loan Board .. 69, 287
Publishing 392–3
Puisne Judges 73
Purchase tax 280, 282, 286

Q

Quakers, *see* Friends, Society of
Quarries, *see* Mines and quarries
Quarter Sessions 75, 76
Queen Alexandra's Royal Army Nursing Corps 110
Queen's Bench Division (High Court) 70, 73, 79
Queen's Counsel 79
Questions, parliamentary 33, 37, 40

R

RAF, *see* Royal Air Force
Radar 112, 193, 244, 382
Radioactive isotopes 198, 380
Radiochemical Centre .. 198, 380
Radio equipment industry 193
Radiocommunications 382
  air 244–5
  sea 251
  See also Broadcasting
Railway Executive 218, 221
Railway workers, earnings 271
Railways 126–7, 195, 215, 216–17, 219–24, 232, 233
Rainfall 5, 183, 186
Rates 68–9, 124, 277
  water 184
Rationing, end of .. 120, 149, 316
Raw materials:
  commodity markets 307
  control and State trading 120, 135, 311
  imports .. 118, 119, 297, 311
Rayon industry 200
Reactor School (Harwell) 380
Rearmament 97, 120, 135
Recorder (Quarter Sessions) .. 75, 76

Page
Recorder of London 76
Recreations, *see* Leisure activities
Refineries, *see* Petroleum refining industry
Refractories 203–4
Refrigeration industry 192
Regent, appointment of 24
Regiments, Regular Army .. 108–9
Regional Boards for Industry .. 136
Regional Hospital Boards 330, 331, 332
Registrar General 47, 56
Rehabilitation of disabled 258, 261, 333
Religion 364–8
  in schools 342–3
  See also Churches
Religious Orders .. 333, 364, 367
Remand homes 85
Remploy Ltd. 261–2
Rent control 355–6
Rent tribunals 77, 356
Republic of Ireland, *see* Ireland, Republic of
Research, scientific and industrial 368–86
  Advisory Council for 372, 373, 375
  agricultural 157, 159–61, 198, 374, 377–8, 381, 386
  aircraft .. 53, 195, 242, 243, 381
  anti-locust 383
  associations 372
  atomic 102, 198, 379–80
  broadcasting 382, 400, 405
  building 353, 382
  chemistry 382
  coal 171–2
  Colonial development 383
  defence 53, 102, 104, 374, 381
  Department of 52, 276, 373, 375–6, 385, 386
  Development Commission 129, 163, 373, 381
  Development Fund 373, 381
  electricity 178–9, 183
  expenditure on .. 283, 371–2, 386
  fire prevention 94, 375
  fisheries 163, 381
  food .. .. .. 375 footnote, 381
  forestry 166, 373, 375 footnote, 382
  fuel and power 382
  gas 182
  Government responsibility for 52, 53, 373–86
  industrial 136, 371–2
  institutes 198, 372, 376, 378, 381, 382
  land use 382
  learned societies 369–70
  marine navigation 382

Page

Research—*contd.*
  medical 171, 275–6, 331, 369, 373, 376–7, 382–3, 386
  meteorological 43
  mines, safety in 171, 382
  National Research Development Corporation 372
  naval 104, 381
  nutrition 381, 382
  oversea liaison 383, 384–5
  Privy Council Committees for 374, 375, 376, 377, 379
  radio and telecommunications .. 382
  roads 382
  television 405
  university 160, 182, 276, 368, 370–1
  water pollution 186
  See also individual industries
Retail trade 255, 314–18
Retirement pensions 325–6
Reuters Ltd. 413
Revenue, sources of 124, 280, 283–7
Ridley Committee, on Fuel and Power Policy 181
River Boards 185
River pollution, prevention of .. 186
Road Fund 225
Road Haulage Disposal Board .. 228
Road transport 226–9
Roads 216–17, 224–6, 382
Roman Catholic Church 27, 84, 86, 367, 368
  schools 86, 343, 367
Royal Academy 389
Royal Academy of Dramatic Art .. 395
Royal Academy of Music 397
Royal Air Force 43, 96, 100, 101, 111–14, 246
Royal Air Force Volunteer Reserve .. 114
Royal Aircraft Establishment (Farnborough) 195, 381
Royal Albert Hall 396
Royal Auxiliary Air Force 113
Royal Botanic Gardens (Kew) 43, 383
Royal College of Art 389
Royal College of Music 397
Royal Commissions on Ancient and Historical Monuments 390
Royal Commission on Mental Health 331 footnote
Royal Commission on Population .. 11
Royal Commission on Scottish Affairs 55 footnote
Royal Commission on the Civil Service 61 footnote
Royal Commission on the Press .. 408

Page

Royal Family:
  ceremonial 24
  financial provision for 278
  genealogical tree 23
  order of succession 21, 23
Royal Festival Hall 396
Royal Fine Art Commission .. 386, 390
Royal Fleet Reserve 106
Royal Institute of British Architects (RIBA) 391
Royal Institute of Chemistry 369
Royal Institute of Oil Painters .. 389
Royal Institution 370
Royal Manchester College (music) .. 397
Royal Marines 105–6
Royal Mint 289
Royal National Institute for the Blind 319
Royal National Lifeboat Institution .. 212
Royal Naval Minewatching Service .. 106
Royal Naval Reserve 106
Royal Naval Volunteer Reserve .. 106
Royal Navy 96, 100, 101, 103–6, 246, 381
Royal Observatory 1, 373, 381
Royal Observer Corps 114
Royal Opera House, Covent Garden 397
Royal Ordnance Factories 53, 58, 102, 131
Royal Prerogatives, *see* Monarchy
Royal Proclamations, *see* Monarchy
Royal Society 369–70, 373, 376
Royal Society for the Prevention of Accidents 229, 275
Royal Society of Arts 370, 390
Royal Society of British Artists .. 389
Royal Society of Edinburgh 393
Royal Society of Literature 393
Royal Society of Painters in Water Colours 389
Royal Society of Portrait Painters .. 389
Royal Ulster Constabulary 91
Rubber industry 203, 207
Rule Committee (Supreme Court) .. 78
Rural District Councils 63–4, 66, 70
Rural Industries Bureau 161

S

Sadler's Wells Ballet and School 395, 397–8
Safety measures:
  air 243, 244–5, 246, 251, 275
  industry .. 263, 270, 271, 275
  mines 171, 270, 275
  railways 275
  roads 64, 227, 229, 275, 382
  sea 210, 211, 212, 246, 251
St. Andrew's Ambulance Association 320, 336

Page
St. John Ambulance Brigade 320, 336, 350
Salvation Army 320, 367
Sanitary ware industry .. 204–5
Sanitation .. 64, 184, 269–70, 329
Savings:
  National Savings Certificates 251, 290
  Post Office Savings Bank 52, 251, 290
  Trustee Savings Banks 290
Scholarships 45, 344, 346–7, 376, 378
School Health Service 343
School Meals Service 343
Schools 339–44
  approved 86
  architecture 391
  art 389
  broadcasting to 342, 405
  Church 340, 365, 367
  co-educational 339
  comprehensive 340
  dramatic 395
  fees 346
  finance .. 338, 339, 340, 346
  free transport to 343
  grammar 340, 346
  health and welfare in 343
  independent 339, 341
  Inspectorate 45, 339
  leaving age .. 253, 339, 340, 341
  meals in 343
  numbers attending 339
  preparatory 341
  primary 340
  public 340, 341
  religious teaching in .. 342–3
  scholarships and grants .. 346–7
  secondary 340–1
  special 343
  teachers 255, 342, 365
  voluntary 339–40, 342–3
Science:
  international collaboration 383, 384–5
  promotion of 368–86
Science museums 383–4
Scientific and Industrial Research, Department of 52, 276, 373, 375–6, 385, 386
Scientific instruments industry .. 205
Scientific Library and Technical Information Committee 374
Scientific Manpower, Committee on 374
Scilly Isles .. 1, 63 footnote, 144
Scotland:
  Advisory Committee on Medical Research 383
  agricultural research 160, 378, 381
  Agricultural Wages Board 266

Page
Scotland—*contd.*
  agriculture 143, 144, 145, 149, 153, 154–5, 156, 157, 158, 159, 160, 161
  airports 240, 243–4
  ambulance service 115, 336
  area 1
  art galleries and museums .. 56, 388
  banks 289, 292
  Borstals 85–6
  broadcasting 401, 403, 404, 406, 407
  canals 230, 231
  Church of (Presbyterian) 84, 320, 366
  civil defence 115
  coalfields 170
  courts of law 74, 76
  crofts 145, 154–5
  Crown Office 57
  Department of Agriculture for 56, 153, 155, 156, 158, 160, 378, 381
  Department of Health for 56, 163, 383
  Department of the Registrar General for 56
  Development Area .. .. 126, 129, 358 footnote
  Edinburgh Festival 397
  elections 66
  electricity 175, 178
  Episcopal Church 366
  fire service 65, 92, 93, 94
  fisheries 161–4, 381
  forestry 164–7
  General Registry Office, *see* Department of the Registrar General
  Government Departments 55–7
  Health Service 56, 331–2
  holidays, statutory 275
  hospitals, number of 333
  housing .. 351, 352, 353, 355, 356
  industries 126, 128, 188, 189, 199, 200, 201, 202, 204
  judges, appointment of 79
  land use and planning 358
  language 15
  law 70, 71
  Law Officers 37, 57, 79
  Law Society 80
  legal aid 80, 81
  legal departments 57
  local government .. 64, 65, 66, 67, 68
  Lord Advocate 37, 57, 79
  Lord President of the Court of Session 74, 76, 79
  medical research 383
  Minister of State for 55
  National Library 391
  National Forest Parks 167

Page
Scotland—*contd.*
  National Gaelic Mod 397
  National Parks (proposed) .. 360–1
  National Youth Employment Council, Advisory Committee for 260
  Nature Reserves 361
  new towns 359, 360
  North of Scotland Hydro-Electric Board 175, 178, 179
  nuclear power reactors .. 176–8, 380
  orchestras 396
  police 88, 89, 90, 91
  population 6, 7, 9, 11, 12, 13
  ports 162, 214, 215
  Press .. 408, 410 footnote, 411–12, 413
  prison system 83
  probation 87–8
  Procurator Fiscal 77
  rates 68–9
  research institutes 160, 376 footnote, 378, 381
  Royal Commission on Scottish Affairs .. .. 55 footnote
  Royal Scottish Academy (Music) .. 397
  scholarships 347
  schools 339, 340–1, 342
  Secretary of State for 36, 54 footnote, 55, 79, 82, 83, 85, 86, 88, 92, 115, 164, 166, 175, 183, 351
  Sheriffdoms .. .. 74 footnote
  shipbuilding areas 128, 189
  Solicitor-General 37, 57
  South of Scotland Electricity Board 175, 178, 179
  State Management Districts .. 56
  teachers' training colleges 342
  technological education .. 345–6
  town and country planning 351, 357, 358, 359, 360, 361, 362
  Transport Users' Consultative Committee 217
  universities 160, 344
  water supply 185
  welfare centres 334
  young offenders, treatment of ..85–6
  Youth Employment Service .. 260
  Youth hostels 350
  Youth Services 348
Scotland Yard 90
Scottish Agricultural Improvement Council 156
Scottish Agricultural Securities Corporation 156, 292
Scottish Community Drama Association 394–5

Page
Scottish Council (Development and Industry) 134
Scottish Council of Physical Recreation 350
Scottish Council of Social Service 319, 320
Scottish Country Industries Development Trust 161
Scottish Education Department 56, 260, 339
Scottish Health Services Council .. 332
Scottish Home Department 55–6, 163, 381
Scottish Land Court 74, 154
Scottish Leaving Certificate Examination 342
Scottish National Blood Transfusion Association 333
Scottish Office 55
Scottish Old People's Welfare Committee 320
Scottish Omnibus Group 219
Scottish Police Federation 90
Scottish Special Housing Association 353
Scottish Trades Union Congress .. 265
Scottish Water Advisory Committee 185
Scottish Women's Rural Institutes .. 161
Scouts and Guides .. 347, 348–9
Sea Cadet Corps 106, 349
Sea pollution, prevention of .. 211–12
Seamen:
  conditions of employment 211, 213–14
  organizations 210
  training 210, 212–13
Select Committee on Estimates .. 280
Select Committee on Nationalized Industries 137
Select Committee on Public Accounts 279
Selection, Committee of (Parliamentary) 31
Services' Land Requirements, Interdepartmental Committee on .. 351
Sewerage 48, 64, 67, 329
Shakespeare Memorial Theatre Company 393, 394
Sheriff Court 74, 76
Shipbuilding industry 126–7, 128, 139, 142, 189–90
Shipping 208–16
  conferences 211
  Cross-Channel services .. 215, 222
  General Register and Record Office of 211
  insurance 210, 294
  medical advice, service for 251
  merchant fleet, composition 208–9
  organizations 210–11
  ports 214–16, 229–31
  radiocommunications 251

Page

Shipping—*contd.*
  relations with Government 211–12
  relations with air companies .. 242
  safety .. 210, 211, 212, 246, 251
  tanker fleet 172, 208, 209
  tonnage 172, 208–9, 214
  weather reports for 251
  See also Docks *and* Shipbuilding industry
Shipping Federation 210
Shirley Institute 199
Shop stewards 264
Shops 270, 314–17
Sickness benefit 324
Silicones 197
Silk industry 200
Silver ware 205–6
Slade School 389
Slum clearance 352–3
Smallholdings 144
Smallpox vaccination 337, 338
Social services 319–50
  expenditure on .. 142, 283, 319
  reciprocal agreements with other countries 322
  training of social workers 321
  voluntary organizations 319–21, 328, 336, 338, 339, 345, 347–50
Society for Education through Art .. 389
Society for the Protection of Ancient Buildings 362, 391
Society for Theatre Research .. 394
Society of British Aircraft Constructors 195
Society of Motor Manufacturers and Traders 194
Society of St. Vincent de Paul .. 320
Solicitor-General 37, 50, 79
Solicitors .. 76 footnote, 77, 79–80
South of Scotland Electricity Board 175, 178, 179
Southampton, port of 214, 215
Sovereign, *see* Monarchy
Speaker:
  House of Commons 26, 27, 29, 30, 34, 365
  House of Lords 26, 29–30
Special Constabulary 90, 116
Speech from the Throne .. 22, 277
Sport 17–18, 350
Staff colleges (Armed Forces) .. 101
Standing Commission on Museums and Galleries 386
Standing Conference of Drama Associations 394–5
Standing Conference of Music Committees 397

Page

Standing Conference of National Voluntary Youth Organizations .. 348
State Management Scheme 48
  in Scotland 56
State-importing:
  foodstuffs 149, 311
  raw materials 311
Statutory Instruments, *see* Delegated legislation
Stationery Office .. 52, 131, 393
Steel, *see* Iron and steel industry
Sterling area 118, 304, 305
  United Kingdom, trade with 298, 299, 302, 303, 306–7
Stipendiary magistrates .. 75, 78
Stock Exchanges 293
Street traders 314, 316
Strikes and lock-outs 262, 267
Subsidies:
  agricultural and food 148–50, 152–3, 157, 158–9, 283
  housing 354–5
Supply, Committee of .. 34, 278
Supply, Ministry of 53, 99, 101–2, 135, 243, 379, 381, 386
Supply Services 31, 278
Supreme Court of Judicature 73, 78, 80
Swansea, port of .. 214, 215, 231
Synthetic detergents 197, 198
Synthetic fibres industries 126–7, 200–1

T

Tanker fleet 172, 208, 209
Tate Gallery 388
Taxation 49, 68, 123, 124, 280, 281–8
  allowances to industry 282
  Customs and Excise duties 45, 280, 282, 283, 286
  estate duties 49, 280, 282, 284, 286, 287
  for non-residents 286
  income tax and surtax 49, 280, 282, 284, 286
  of companies 286
  profits tax 49, 280, 282, 284
  purchase tax 280, 282, 286
  stamp duties .. 49, 280, 284
Taxicabs (London) 232
Teachers 255, 342, 365
Technical and Scientific Register .. 257
Telegraph system 248–9, 250
Telephone exchanges 246, 249
Telephones 249–50
Teleprinter system 248
Television .. 18, 399, 400, 402–7
  equipment 193, 404

Page

Television—*contd.*
  stations 402–4, 407
Television Advisory Committee 405
'Telex' service 248–9, 250
'Terylene' 200
Territorial Army 110–11
Textile industries 126–7, 132, 139, 187, 198–201, 254
  cotton 199
  jute 200
  linen 200
  machinery industry 191–2
  silk 200
  synthetic fibres 200–1
  woollen 128, 199–200
Thames Conservancy Board 184, 185
Theatres 18, 393–4
Thomson-Leng (publishing group) 411, 413
Tilling (bus) Group 219
Timber, volume in woodlands 165
Tobacco industry 201, 203
Tourist Information Centre 311
Tourist trade 310–11
Tourists' currency allowances 311
Town councils 64, 65, 66, 68–9
Town and country planning 49, 65, 129, 351, 356–63, 382
Tractors 159, 190
Trade 296–318
  Board of 53, 129, 135, 136, 137, 141, 308, 312–13, 358, 390, 396
  external 118–21, 296–313
    balance of payments 120, 298–307
    composition 296–7, 299
    distribution 298, 299
    Government assistance to 308–9
    liberalization policy 306–7
    oversea investment 118–19, 305–6
    State-importing 149, 311
    terms of 119, 297–302
    value and volume 296, 297, 299, 300
    See also Exports *and* Imports
  internal 314–18
    retail 255, 314–18
    wholesale 314, 315
Trade Commissioners 308
Trade fairs 310
Trade Unions 136, 262, 264–5, 269
  civil aviation 236
  Civil Service 62
  musicians 397
  Press 414
  seamen 210
  stage 394
Trades councils 265

Page

Trades Union Congress 140, 265, 267, 409
Trading Estates 129
Traffic:
  air 238, 239
  air control 244
  canals 229, 231
  London 232
  ports 214, 215
  Post Office 247, 248, 249, 250, 251
  rail and road 18 footnote, 216–17, 219, 225, 229
Training schemes:
  industrial 258, 261, 262
  journalism 413–14
Transport 208–46
  air 234–46
  capital investment 142
  Central Consultative Committee 217–18
  free for patients 336
  free for school children 343
  inland water 229–31
  London 231–3
  Ministry of, and Civil Aviation 53–4, 135, 137, 163, 211–13, 217–18, 225, 227, 229, 234, 236, 242–3, 245, 382
  nationalized, legislation 217–18
  Northern Ireland 225, 226, 233
  rail 216–17, 219–24
  road 216–17, 226–8
  sea 208–16, 222
  Tribunal 217
  troop-carrying (air) 241
  Users' Consultative Committees 217–18
  See also British Transport Commission *and* Safety
Travel allowance 311
Treasury 41–2, 59, 60, 61, 135, 137, 278–80, 293, 312
  Bills 287, 291
Treaties, international 22, 30
Tribunals:
  administrative 77
  agricultural 154
  industrial disputes 267, 269
  Lands 51, 68, 77
  National Insurance 77, 327
  pensions appeal 51, 77
  rent 77, 356
  transport 217
Trinity House, Corporation of 212
Trustee Savings Banks 290
Tuberculosis:
  bovine 157–8
  mortality rate 9
  treatment of 337
Tyneside 128, 189, 214, 215

Page

U

Ulster Drama League 394
Ulster Special Constabulary 91
Ulster Transport Authority 233
Unemployment 119, 120, 128–9, 253, 255–6
Unemployment benefit .. 324–5
Unit trusts 294
Unitarian and Free Christian Churches 367
United Kingdom:
  area and composition .. 1, 118
  population 7–13, 118
United States aid 97, 298, 300, 301, 303
Universities 344
  agricultural degree courses .. 160
  drama in 395
  extra-mural courses 345
  finance 344, 346
  forestry courses 166
  libraries 391, 392
  museums 388
  Presses 393
  Privy Council committees 35
  research 160, 182, 276, 368, 370–1
  scholarships and research fellowships 45, 344, 346–7, 371, 376, 378
  students, numbers of 344
  technological education in .. 345, 370–1
University Grants Committee .. 344
Urban District Councils .. 63–4, 69

V

VHF (broadcasting) 401
Vaccination 337, 338
Valuation (for rates) 68–9
Vegetables, production and
  marketing 143, 144, 145, 146, 151, 314
Vehicles industry 126–7, 132, 138, 139, 142, 187, 193–5
Venereal disease, treatment centres .. 337
Veterinary Service 158
Victoria and Albert Museum 388, 389
Visitors, Boards of (prisons) .. 82, 84
Vital statistics 8–9
Vocational guidance 261
Vocational training 258, 261
Voluntary organizations:
  cultural 18–19, 387
  for prisoners 84–5
  for sick and handicapped 262, 319–21, 329, 336, 338
  in civil defence 114
  in education 339
  in industry .. 133–4, 263–6, 275–6
  in Youth Services 347–50

Page

W

Wages:
  manual workers (average) .. 271–2
  negotiations 133–4, 213, 266
Wages Boards and Councils 266
Wales:
  agriculture 143
  area 1
  broadcasting 401, 403, 404, 406
  Church in (Anglican) 366
  counties .. .. 1, fold-in map
  Eisteddfod 393, 397
  electricity 174
  fisheries 161
  Free Churches 367, 368
  forestry 164, 165, 166
  gas 182
  holidays, statutory 274–5
  industries 126–7, 128, 129, 170, 187, 188, 196, 204
  language 7, 15
  Minister for Welsh affairs 48
  National Forest Park 167
  National Library 391
  National Museum 388
  National Parks 360, 361
  National Youth Employment Council, Advisory Committee for .. 260
  newspapers 408, 412
  population 11, 12, 13, 14
  ports 214, 215, 231
  Transport Users' Consultative Committee 217
  University of 160, 344
  Welsh Department of Ministry of Education 45
Wallace Collection 388
War Damage Commission 351 footnote
War, economic effects of .. 119–20
War Office 54, 99, 102
War pensioners 47, 51–2, 56, 321, 328
Warburg Institute 389
Watch Committee (police) 88
Water Pollution Research Laboratory 186
Water supply .. 139, 142, 157, 183–6
Waterways 229–31
Weather 4–5, 143
  forecast services 43, 249
  warnings for ships 251
Webber-Douglas School (dramatic art) 395
Welfare:
  blind 319, 328, 338
  centres 334
  in civil defence 116
  industrial 269–71, 275–6

Page

Welfare—*contd.*
  Merchant Navy 214
  old people .. 319, 320, 328, 336
  prisoners 84
  school children 343
  war pensioners .. 51–2, 321, 328
  See also National Insurance *and* National Assistance
Welfare Foods Service 335
Welsh Agricultural Land Sub-Commission 155
Welsh Land Settlement Society .. 144
Welsh League of Youth 348
Welsh National Opera Company .. 398
Westminster Press Group 410
Whaling 164
Whips, parliamentary .. 27, 29, 41
Whisky industry 201
White Fish Authority 164
White Fish Industry Advisory Council 164
Whitley Councils .. 62, 67, 268–9
Wholesale trade 314, 315
Widow's benefit 325
Widow's pensions .. 325, 327, 328
Wigmore Hall 396
Women:
  earnings 271–2, 274
  employment .. 252–6, 260, 270, 274
    See also individual industries
  hours of work .. 263, 270, 274
  housewives 16–17, 252
  in Armed Forces 100, 105, 106, 110, 113, 253
  in Civil Service 58, 274
  in fire services 94, 95
  in Free Church Ministry 367
  police 88, 90
  proportion in population 10
Women's Advisory Council on Solid Fuel 183
Women's Group on Public Welfare .. 320
Women's Institutes 161
Women's Junior Air Corps 349
Women's Royal Air Force 113
Women's Royal Army Corps .. 110

Page

Women's Royal Naval Service 105, 106
Women's Royal Naval Volunteer Reserve 106
Women's Rural Institutes 161
Women's Voluntary Services 114, 320, 336
Woodlands 5, 164–5, 167
Wool Industries Research Association 200
Wool industry .. 126–7, 128, 199–200
Wool Marketing Board 151
Work, hours of:
  average 16, 274
  for children and women 263, 269, 270, 271, 274
  in Civil Service 62
  in prisons 84
  lost by strikes 262, 267
Work, travel to 16–17
Workers' Educational Association .. 345
Working conditions .. 269–71, 275–6
Works Councils 266, 268
Works, Ministry of 54–5, 135, 351, 361, 380, 382
World Council of Churches 368

Y

Young Farmers' Clubs .. 161, 349
Young Men's Christian Association (YMCA) 347
Young offenders 75, 85–7
Young persons' employment 260, 270, 271, 274
Young Women's Christian Association (YWCA) 347
Youth:
  centres 348
  Employment Service 260
  National Youth Orchestra 397
  organizations 106, 111, 114, 161, 347–50
  Services 347–50
  See also Children *and* Leisure
Youth Hostels Association 350

Z

Zebra crossings 229

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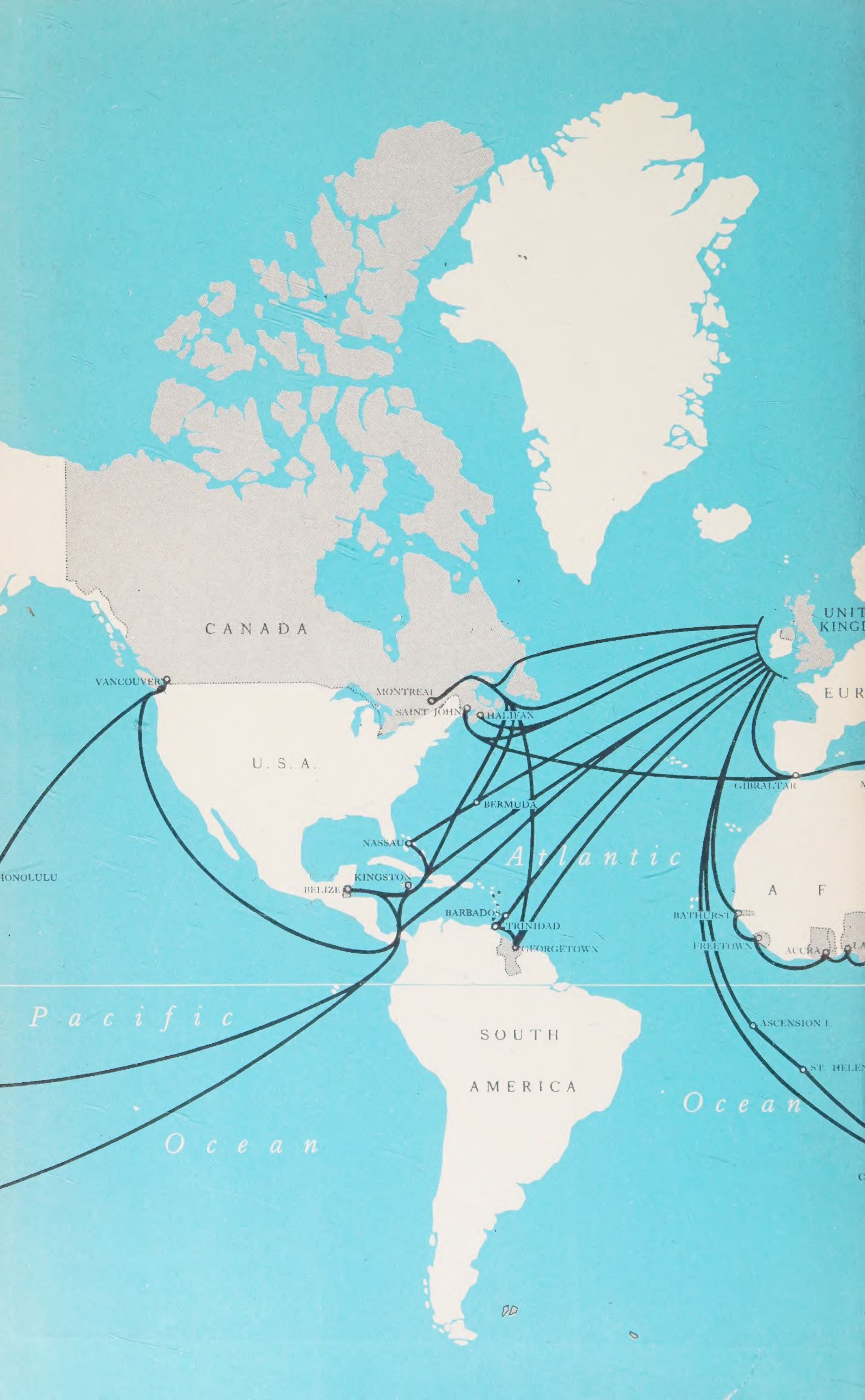
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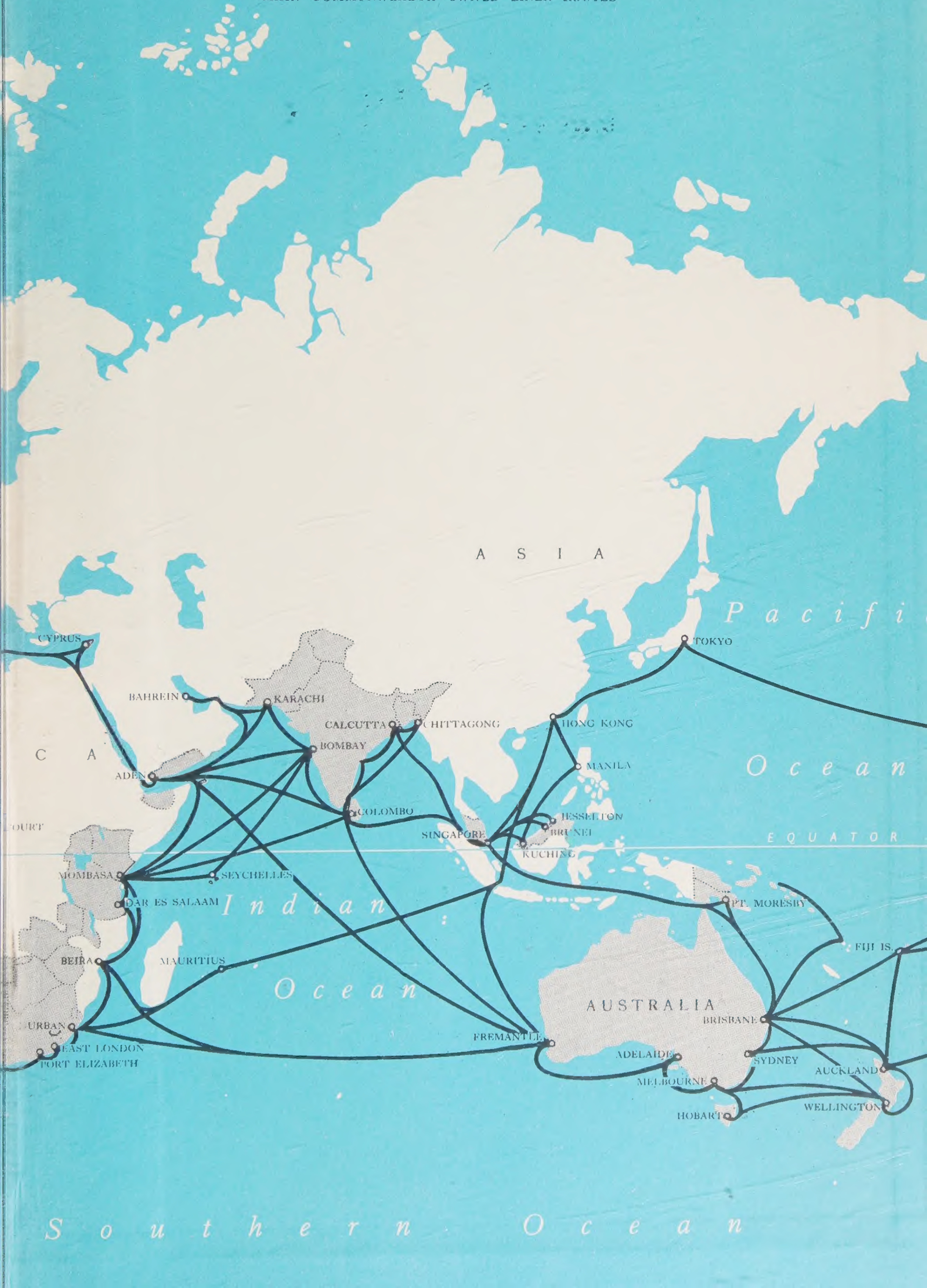
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